

STATE OF MICHIGAN

WASHTENAW COUNTY CIRCUIT COURT

In The Matter Of:

People v. Gary Leiterman  
File No. 04-2017-FC

CRIMINAL JURY TRIAL CONTINUED

BEFORE HONORABLE DONALD E. SHELTON, JUDGE

Ann Arbor, Michigan-Friday, July 15, 2005

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Ann Arbor, Michigan

Friday, July 15, 2005 at 8:07 a.m.

THE LEGAL CLERK: The Honorable Donald E. Shelton,

presiding.

THE COURT: Bring in the Jury, please. Have your witness resume the stand.

THE LEGAL CLERK: All rise for the jury, please.

THE COURT: Please be seated. Good morning ladies and gentleman.

THE JURY: Good morning.

THE COURT: We are going to continue with the cross examination of Ms. Thivault this morning. Good morning. You took an oath yesterday and I want to remind you that you are still under oath.

THE WITNESS: Yes.

THE COURT: Mr. Gabry.

MR. GABRY: Thank you, your Honor.

**CONTINUED CROSS EXAMINATION**

BY MR. GABRY:

Q Good morning Ms. Thivault.

A Good morning.

Q When we broke yesterday afternoon we were talking about what would happen when errors would occur in the process. In your experience in working either at the Grand Rapids lab or Lansing

lab under the Michigan State Police protocol, have errors occurred?

A Yes,

Q Could you give the jury an example of some of the types of errors you are familiar with?

A From personal experience, I've worked a case in Lansing where I had an incident of contamination in one of my controls. The source of contamination was identified. By that, one of the negative controls that was not supposed to have DNA in it, had a small amount of DNA in it. I was able to take the DNA profile and compare that to the DNA profile of analysts within the laboratory. I was able to identify the source, because the source of the DNA was identified, the data deemed interpretable and the defense accepted the results and decided not to retest the samples.

Q Do you know how the contamination occurred?

A I know that--

THE COURT: Are we talking about another case now?

MR. GABRY: No, on this case that she has worked.

THE COURT: Not this case?

MR. GABRY: Correct.

THE COURT: All right, we are not going to go too far road if we are not talking about this case.

MR. GABRY: Sure.

THE COURT: Let's get this done. All right.

1                   THE WITNESS: I was able to identify the point in which  
2                   it occurred but as to how or why, we were not able to figure  
3                   that out.

4 BY MR. GABRY

5 Q From your continuing study in the field and the various seminars  
6                   and programs you've participated in, isn't it true that this  
7                   control method is only one possible way of catching  
8                   contamination?

9 A It is one way, yes.

10 Q In fact, contamination can occur, even by getting around that  
11                  entry or that control, is that correct?

12 A I have not seen or heard of that.

13 Q Now, going into your particular process and what you did, the  
14                  actual examination of the evidence itself, I think we've talked  
15                  about a T-shirt here, where does that occur in the lab?

16 A In the serology or the biology processing area which is a  
17                  separate closed door--room than the DNA area where samples are  
18                  processed.

19 Q Any samples are looked at there and then that is where any  
20                  cuttings are taken, removed, is that correct?

21 A Yes.

22 Q And then go through the refrigerator and that whole process?

23 A Yes.

24 Q I'd like to ask you about this amplification process.

25 A Yes.

1 Q What you call this Xeroxing. Am I correct that this process,  
2 within a few hours, operates in such a away that a single cell  
3 can be multiplied in as much as a couple of billion times?  
4 A It is closer to million, but yes.  
5 Q Really, all that we are doing in the process is taking the  
6 fragment, or whatever portion, of the DNA that we are able to  
7 require, and we are recreating, reduplicating or recopying that  
8 one?  
9 A Yes, it's an exponential process.  
10 Q Are there any--it seems like this is a very highly sensitive  
11 method of extracting DNA then, is that correct?  
12 A Of detecting DNA, not extracting, yes.  
13 Q When we have partial profiles, why does that occur?  
14 A When you receive or get a few results with partial profiles, it  
15 can be the result of a few things; it could be because there is  
16 a limited amount of initial sample present. It also could be  
17 from the degradation of a sample, meaning the DNA was exposed to  
18 environmental insults: sun, rain, moisture, bacterial, heat.  
19 They all act to break DNA to smaller pieces. When this happens  
20 the DNA testing doesn't produce results--it doesn't change  
21 results, it just means I don't get results or I get partial  
22 results.  
23 Q Is there any way to tell in your testing process as to what the  
24 purpose, or why in this specific case, of why the profiles  
25 weren't acquired?

- 1 A The only way you would be able to tell--you would only be able  
2 to guess as to why you would only get a partial profile because  
3 you don't know exactly what happened to the sample before it  
4 came into your possession based on the forensic sample.
- 5 Q Are there any thresholds or limitations in the Michigan State  
6 Police protocol that indicate that you are only to report out a  
7 partial profile when it meets or when it identifies similar  
8 alleals or a certain number of loci?
- 9 A There are certain interpretational guidelines in the laboratory.  
10 There are minimal thresholds in the laboratory and all those  
11 mixed with the interpretation of the scientist will determine  
12 what we report and what we don't report.
- 13 Q As far as once all of those interpretations have been met and  
14 you report out a specific alleal at a specific loci placed on  
15 the chromosome, there are thirteen places that you test for,  
16 correct?
- 17 A Yes.
- 18 Q If a profile is reported out that would indicate an alleal at  
19 maybe four different loci, would it be reported out at those  
20 particular alleals with whatever description and I have seen  
21 things like, "A" below reporting standards, "ND" non detected or  
22 not detected.
- 23 A If I receive interpretable results at a particular locus that  
24 are included in my results.
- 25 Q And that is considered a partial profile?

1 A Yes.

2 Q And statistics are done on that?

3 A If there is a match, yes.

4 Q Those statistics, that's done in every case that is reported

5 out?

6 A The statistics are not calculated for every case that we process

7 in our laboratory. Statistics are only reported out if there is

8 a matched deemed by the analysts who's doing the analysis.

9 Q These statistics are reported out in something called the

10 product rule, am I correct?

11 A If they are a single source, yes.

12 Q What is that product rule?

13 A The product rule is a statistical process that allows you to

14 take random events and multiply them together. It's like-to try

15 to make it easier to understand, if you are buying a house and

16 you want--you go to a realtor and say, I want a white house.

17 They are going to look at you like your crazy because there are

18 a million white houses. He's going to say, you are going to need

19 to be more specific with me. So, you're going to say, I want a

20 white house with green shutters and a flag pole, with a driveway

21 that is ten feet long and house three bedrooms, two car garage.

22 As you get more specific you are able to narrow down the field

23 to a particular house you are going to look at. What I am doing

24 by testing thirteen individual loci, I'm trying to narrow the

1 field of possibilities when I am comparing one DNA profile to  
2 another.

3 Q Now, in order to begin that process and calculation, you have to  
4 have some sort of a data base that you're looking at to  
5 determine the frequency that a certain alleal would appear at a  
6 certain loci?

7 A Locus, yes.

8 Q Locus--it is singular. What data base do the Michigan State  
9 Police use?

10 A The FBI data base.

11 Q How many individuals are profiled in that database?

12 A It depends on the locus in question, but it is roughly between  
13 one hundred and two hundred individuals.

14 Q So these statistics that are then reported out, and I am not  
15 sure if there are some in your report but I am sure we will hear  
16 some as the day goes on, are all based on the premise of the  
17 examination of these profiles of up to two hundred people?

18 A Yes.

19 Q And then once you determine the number of time that a certain  
20 alleal appear at a certain locus, do you have a certain  
21 percentage or number?

22 A Yes.

23 Q And then that number is then multiplied by the number of the  
24 other frequency or the other alleal, if there is two at that  
25 locus?

- 1 A You take the frequency from an individual locus and multiply it  
2 by the frequency of the next locus and the product of all those  
3 thirteen is what you would report--actually your inverse of that  
4 is what you would report.
- 5 Q You just keep multiplying up by whatever number, correct?
- 6 A As you add more loci, because the individual loci are not linked  
7 genetically it is acceptable in the scientific community to  
8 report your profiles that way.
- 9 Q And while this goes back to starts, this foundation is the  
10 database that determines the frequency that an alleal with  
11 appear at a loci--locus, is that correct?
- 12 A Yes.
- 13 Q Isn't it true that at this point in time we don't know about  
14 frequencies that certain pairings would appear at a loci?
- 15 A You--we do not study the pairing of alleals at individual--at an  
16 individual locus because they are not--they're not linked so it  
17 is not necessary to view them that way.
- 18 Q So we don't know then, because we really haven't looked. It is  
19 the opinion of scientists that they are really not linked so you  
20 won't tend to see more often, fourteen with fifteen or you might  
21 see a seventeen with an eighteen?
- 22 A That's correct.
- 23 Q Now, this type of--you started DNA processing back in the state  
24 of Illinois?
- 25 A Correct.

1 Q Were you doing the old method back then?

2 A By that, what do you mean?

3 Q I believe it is RLPH?

4 A RLFP is what you are referring to and-

5 Q All right, thank you.

6 A --during my training I had did a little bit of the processing,  
7 but, our state had decided not to pursue that and to go to the  
8 PCR base system, so in the middle of our training we were  
9 actually stopped and held while we changed over to the other  
10 line of training.

11 Q And that was how long ago that you were in Illinois?

12 A 1995.

13 Q So within the past 10 years we have basically--forensic science  
14 has moved away from using the process that you began your  
15 training on, into this new PCRS-ST process, is that correct?

16 A Yes.

17 Q Why--why did we--do you know why?

18 A The nature of the forensic samples are that they are exposed to  
19 the environmental insults and with RLFP testing, you need a  
20 large stain or sample in order to produce results. The forensic  
21 community had samples that they were unable to obtain results  
22 from and these scientific methods that were used In other areas  
23 of the medical fields and the research that were adapted for use  
24 in forensics so that we could look at DNA profile from, say a  
25 hair--a single hair left at a crime scene or from an envelope

1 flap from an intimidation or from a stocking case or from a  
2 letter from a homicide or even the back of a stamp that, say has  
3 suspected to be involved in a crime. We are able to discovery  
4 more and more typed of evidence that PCR base systems would  
5 allow you to review and obtain DNA profiles in order to aid in  
6 the investigation of a crime.

7 Q With the advance of science and this new technology, did there  
8 come, if you know and possibly may have been involved in,  
9 training of the officers on the gathering and acquiring of  
10 evidence out in the field?

11 A Yes.

12 Q Those processes were changed, new recommendations came down  
13 from, I think, even the FBI, did they not?

14 A Yes.

15 Q Those were not the same procedures or applications to crime  
16 scene investigations that were in place--I'm sure you were not  
17 even born in 1969?

18 A That's correct.

19 Q Another thing that I would like to ask because I am trying to  
20 understand some of the data that I received is, when you talk  
21 about this quantification step, that's the step that occurs  
22 after the DNA has been washed in, I call it cleaned, and then  
23 centrifuged?

24 A Yes.

1 Q How do you quantify the amount--and this is the amount before  
2 PCR, correct?

3 A Yes.

4 Q Okay, so it is before amplification. How do you quantify that?

5 A The first system is an onerous gel based system where you tag  
6 the fragments of DNA with ethidium bromide which fluoresces under  
7 ultraviolet light--

8 Q Okay, I remember that one. I thought you said that there was a  
9 second step or a second way--

10 A Yes.

11 Q --and I don't remember hearing that explained, what was that  
12 one?

13 A That is the quantifier method which analysts refer to as a slot  
14 block or a quant block. You take a membrane--a neutral membrane  
15 and you fix your DNA sample onto the membrane. You do a series  
16 of washes to--the DNA has a probe which it combines with the DNA  
17 that is on the membrane and you do a series of washes and  
18 chemicals steps that would take away or would excite the probe  
19 that is present bound to the DNA and bound to the membrane.  
20 By doing this, a visual band appears on the membrane. There are  
21 two different detection methods, there's a color metric system  
22 that use tetramethylbenzidine, it shows you a blue--it shows you a  
23 blue band. If the DNA is present on the membrane and you do a  
24 comparison with known standards a visual comparison to known  
25 amounts of DNA to the samples that you receive--the forensic

1 samples and the known samples, to compare and see--estimate how  
2 much DNA you have present. The other method is a chemuanestant  
3 method where your using bio-fluorescents and exposing the  
4 membrane to X-ray film and running it through a processor to  
5 visual the bands and make a comparison of the intensity. It's  
6 the same comparison; it's just a different development to  
7 visualize the results.

8 Q Being those are the techniques, how are the--how is the--I  
9 guess, how are the output reported? I mean, do we buy a gallon  
10 of milk or a quart of milk? When you say how much DNA is there,  
11 how is that reported out? Is it some scientific term? Is it in  
12 microns and liter, what format might we be familiar?

13 A It's usually reported as nanograms per micro-liter per sample.

14 Q Anograms?

15 A Nanograms.

16 Q Nano.

17 A N-a-n-o.

18 Q And the higher that number, the more DNA that would have been-

19 A Correct.

20 Q Through your experience as well as your preparation to become a  
21 forensic scientist with the DNA, you can familiar with how DNA  
22 cells can get transferred from one object to another, is that  
23 fair to say?

24 A Yes.

1 Q DNA can be transferred to a secondary source and in some cases a  
2 third--tricerary source, is that correct?  
3 A Yes.  
4 Q There was a study done, and I am not sure if you are familiar  
5 with it, it actually tested placing an article that had sperm  
6 Zola with DNA contained, washed it, put it in the dryer. It  
7 dried with other articles and the other articles were tested and  
8 found to have acquired the DNA. Are you familiar with that?  
9 A Actually, I do recall reading a similar article. I don't know if  
10 it is the same one you are referring to, but I do recall.  
11 Q So, it does move around? Fair enough?  
12 A According to that study, yes.  
13 Q From your experience, have you seen situations where DNA gets  
14 transferred to one that you wouldn't expect it to be on?  
15 A From my dealing in the laboratory the only evidence that I can  
16 say from that was the contamination incident that I had and the  
17 other case that we already discussed.  
18 Q Now, in this case that you worked on and the prosecutor brought  
19 you here regarding work for the Jackson Police Department on  
20 homicide--  
21 A Yes.  
22 Q --you've found some blood on various objects?  
23 A Yes.  
24 Q Would you tell the Jackson Police Department when that blood got  
25 onto that black T-shirt?

1 A No,

2 Q There is no way to tell how long DNA would be on a particular

3 surface?

4 A Not from my testing, no.

5 Q When we talked about degradation, can degradation occur in fresh

6 samples?

7 A Yes.

8 Q It's not just a factor of age, is that fair to say?

9 A Yes, that's fair to say.

10 Q So as a forensic scientist you're not able to--are you able to

11 identify--well, in this case you would be able to identify how the

12 DNA got there by way of the blood or not?

13 A How--no. I am just identifying the presence of it being there.

14 Q Actually the DNA could have already been there and some blood

15 came on to it?

16 A Not sure I understand what you are saying.

17 Q I'm trying to understand, in probably a much more layman's

18 terms, what we hear when we hear stains--you were looking at a

19 blood stain. It's the DNA from the blood. Can you say that with

20 certainty based on your testimony?

21 A With absolute certainty no, but I would suspect that to be true.

22 Q That would be an assumption that we would make?

23 A Based my training and expertise, yes.

1 Q Why would you hesitate to say that's not where it came from?  
2 What factor or circumstances would occur to make you believe  
3 contrary that it came from the blood?

4 A I'm not sure, but I am sure--I would suspect based on the  
5 validation studies that have been performed by the State Police  
6 that, if you have a DNA profile on an item, you would expect it  
7 to be from the stain that is deposited on the item and not on  
8 the item itself.

9 Q So you would expect that if somebody dropped blood on somebody's  
10 hand and it was scrapped up, the DNA would probably come from  
11 the blood that dropped on the hand?

12 A Yes, I would believe that, yes.

13 MR. GABRY: Thank you, your Honor.

14 THE COURT: Further questions?

15 RE-DIRECT EXAMINATION

16 BY MR. HILLER

17 Q Good morning ma'am.

18 A Good morning.

19 Q A term that came up here in cross examination was degraded DNA  
20 or degradation. Can you explain the term or what you mean when  
21 you say degradation DNA?

22 A Degraded DNA--by that I mean--what I have spoken before, you  
23 have--if you have a forensic sample and it is exposed to  
24 environmental insults, such as heat, moisture, bacteria,  
25 sunlight; they all cause the DNA to break into smaller pieces.

1 When this happens in the regions of DNA that I test, the DNA  
2 does not produce results. The DNA profiles does not change it  
3 just does not produce—the DNA testing does not produce results.

4 Q So DNA wouldn't cause on persons DNA to look like another  
5 persons DNA?

6 A Correct.

7 Q Your also talking to Mr. Gabry about partial profiles. Can you  
8 explain what a partial profile is?

9 A Any DNA profile that does not produce an interpretable result in  
10 all thirteen loci would be considered a partial profile.

11 Q You also talked about reporting thresholds and interpretational  
12 guidelines used at the laboratory, are the interpretation--are  
13 the reporting thresholds different if the report are—if the  
14 results are inculpatory versus exculpatory?

15 A Yes.

16 Q Explain the difference and also explain your understanding of  
17 the difference between inculpatory and exculpatory is?

18 A By inculpatory, I believe you mean that it is inclusive—that  
19 the profiles match and we are saying that so and so would be  
20 included as a donor to the genetic material that was found. We  
21 have a minimum threshold from our validation studies in the  
22 laboratory where we believe you would have genetic information  
23 that is complete. By that, I mean when you are a heterozygote,  
24 which we talked about yesterday, you have a different alleal  
25 that you receive from your mom than you receive from your dad.

1 We have a minimum threshold that we use in our laboratory to  
2 make sure that we see both those sister alleals from the  
3 heterozygote and that we wouldn't incorrectly interpret a  
4 heterozygote as a homozygote because we only have the presence  
5 of one peak instead of two. That is based on different testing  
6 that we did throughout our validation of the processes that we  
7 use. As far as exculpatory evidence, by that I mean, evidence  
8 that would exclude someone as having left genetic material at a  
9 crime scene where the DNA profile don't match. We can, and I  
10 have gone below that minimum threshold to report to a police  
11 agency, that they indeed are going down the wrong path and the  
12 person that they think may have done something may indeed not be  
13 true. They need to be looking down a different avenue for a  
14 different individual.

15 Q So the reporting standards--if the results show that a suspect  
16 didn't contribute to the DNA, the reporting standards are lower  
17 in that circumstance--the report out low results than something  
18 that says the suspect may have in fact contributed?

19 A Yes.

20 Q You--you indicated that these reporting standards are based on  
21 you validating studies. Can you explain what that is?

22 A During the process of implementing new technology, which we  
23 discussed going from the RFLP to a PCR system, even with a PRC  
24 system there is an old method and a new method and I worked with  
25 both of those methods. During my training in Illinois, I worked

1       on a research validation team which implemented STR's, which are  
2       the system that we use no routinely is new back in 1998 and was  
3       being started in different crime labs across the country. The--  
4       as you accept new technology into your laboratory, you need to  
5       figure out different things about the technology and make sure  
6       it is applicable to what you want to do with it. You want to  
7       make sure the results are reproducible. You want to make sure  
8       there is a good sensitivity level. You need to make sure that  
9       you have the correct amount of DNA that you are going to add  
10      into your system so that you don't--so that you get  
11      interoperable results. You need to look at mixtures and material  
12      to help you add in the interpretation of your results and what  
13      you expect to see. All of the different studies are performed  
14      within a laboratory are recommended or required by accreditation  
15      boards and DNA governing bodies that work throughout the United  
16      States and kind of supervise crime labs across the country to  
17      kind of make sure that they're meeting the minimum guidelines--at  
18      least the minimal guidelines for producing DNA results and  
19      testifying in Court as to those results.

20 Q     So the validate studies are done to ensure that the instruments  
21     and procedures are yielding consistent--consistently reliable  
22     results?

23 A     That's correct.

24 Q     All right. Now, you mentioned accreditation boards. Is the  
25     Michigan State Police laboratory in Lansing accredited?

- 1 A Yes, it is.
- 2 Q Does that accreditation process include audits by outside  
3 auditors?
- 4 A Yes, it does.
- 5 Q In talking about statistics, you mentioned to Mr. Gabry that--he  
6 asked you about whether or not there were studies of frequency  
7 of pairs of--is it alleals?
- 8 A Yes.
- 9 Q Is the alleal the pair or is the alleal the occurrence of each  
10 peak?
- 11 A The alleal would be the individual peak.
- 12 Q The individual peak correspondence--when we talk about a peak,  
13 we talk about the peak on the graph that is called the  
14 electropharagram?
- 15 A Correct.
- 16 Q Now, each peak then--each alleal corresponds to a genetic  
17 material supplied by one or the other parent?
- 18 A Yes.
- 19 Q Can you explain--you told Mr. Gabry that the frequency of those--  
20 --certain combinations of alleals was not studied because they  
21 weren't linked. Can you explain what you mean by that?
- 22 A The inheritance of DNA from your mom and dad in the areas that  
23 we test are not a result of something else. As an example, a lot  
24 of people that have red hair have blue eyes. One could say that  
25 those two traits are tied together and are linked. I am just

1 using this as an example. In forensic the loci that we test are  
2 researched and are shown to individually inherited so that if I  
3 have a fourteen I am not necessarily going to have a fifteen  
4 with it. I have an equal chance to get a sixteen or a seventeen  
5 or an eighteen or a thirty for that matter at an individual spot  
6 on a chromosome.

7 Q Because they come from different people?

8 A Yes.

9 Q Meaning your parents.

10 A Pardon.

11 Q Meaning the parents?

12 A Yes.

13 Q All right. You were talking to Mr. Gabry about the change over  
14 from RFLP to PCR testing that occurred sometime about ten years  
15 ago, or there abouts(sic.)?

16 A There abouts(sic.), yes.

17 Q I think that I heard you say that the forensic science community  
18 looked to technology that was used in other scientific areas and  
19 that's where PCR came from?

20 A Yes.

21 Q What other scientific uses is this PCR testing used in? What  
22 other scientific areas?

23 A PCR base systems are used routinely in the medical application  
24 where you are being saved for an organ donor or transplants.  
25 That's also used in mass disasters in the identification of the

1 bodies or remains. That is also used in paternity testing and  
2 has been for many years and there are many other type areas.

3 Q Would it be fair to say that the--when you look at something like  
4 trying to match organ donors with recipients, these are used to  
5 make life and death--this technology is used to make life and  
6 death decisions in the medical field?

7 A Yes.

8 Q On a regular basis?

9 A Yes.

10 Q Mr. Gabry asked you about whether or not you were aware that you  
11 were working on evidence from the Ruelas case the same time that  
12 Dr. Milligan was doing some work on evidence in this case and  
13 you indicated that you believe that this was true. Can you tell  
14 us--just give us a list of when you had the Ruelas property and  
15 when you put it back in, starting from the time that it was  
16 first checked in?

17 A May I refer to my notes?

18 Q Please do.

19 A For the biology testing, the evidence was removed from the  
20 property room on February 20<sup>th</sup> and the biology testing was  
21 completed and the main bulk evidence; the shirt, the pants, the  
22 belt, the socks, the shoes, was returned to the property room.  
23 The cuttings that I took were turned over to myself for DNA  
24 testing on the following day, the 21<sup>st</sup>. They were placed into  
25 the DNA refrigerator where they sat until the 27<sup>th</sup>, when they

1        were inventoried for DNA analysis. On the 27<sup>th</sup> DNA extraction  
2        was started. On the 28<sup>th</sup> my steps were used for the cleaning and  
3        the washing that we discussed. When the quantitation--can I check  
4        for the dates of the quantitation?

5        Q        If you need to, go ahead.

6        A        Because we process known reference samples separate from the  
7        evidence samples, there are different dates for the different  
8        steps of the analysis procedure. Do you want me to focus on the  
9        known samples or the stains that I reviewed, meaning the cutting  
10      from the T-shirt, or do you want me to report both?

11      Q        Why don't you go ahead and report both and make sure that we  
12      know what we are talking about whether it is the reference  
13      sample or whether it is the evidentiary sample.

14      A        The reference sample--the reference sample was extracted on the  
15      28<sup>th</sup>, the question samples or the cuttings from the T-shirt or  
16      the sock, I believe, were also extracted on the 28<sup>th</sup> but in the  
17      afternoon. The quantization of the reference sample, the yeal  
18      gel step, with the gel I was talking about, was completed on  
19      March 7<sup>th</sup>. The yeal gel was also completed for the question  
20      samples on March 7<sup>th</sup>. The quant block for the reference sample,  
21      which is the second method of quantification where you take the  
22      DNA and you expose it to the X-ray film to visualize how much  
23      was there, the reference sample was completed on March 14<sup>th</sup>. The  
24      quantization of the questioned samples was also completed on the

1       14<sup>th</sup>. The amplification of the known sample was completed on the  
2       25<sup>th</sup>.

3 Q       And when you talk about the known sample, you are talking about  
4       Margaret Ruelas' blood?

5 A       Correct.

6 Q       I'm sorry, what date was that?

7 A       March 25<sup>th</sup>. That was for--in order to test thirteen loci, we  
8       used two different kits and the--so it's two separate  
9       amplification of the same sample. The two different kit have  
10      loci in common that overlap as sort of an internal control.

11           THE COURT: Excuse me. I thought that the question was,  
12      when were these two things going on at the same time. Can we get  
13      to that?

14           MR. HILLER: Actually, this is just a list of when the  
15      properties were in and out.

16           THE COURT: But that wasn't what the question was. The  
17      question was, when were these two things going on at the same  
18      time, and let's get to that.

19           MR. HILLER: I don't mean to argue with the Court, your  
20      Honor, but that was not the question that I asked.

21           THE COURT: Well that's my question. When were these  
22      two things going on at the same time?

23           THE WITNESS: All I can say is when I had my samples at  
24      these steps.

1 THE COURT: Didn't you say earlier that the supervisor  
2 came down and asked you to compare when the Ruelas thing was  
3 going on and the time when the Mixer thing was going on?

4 THE WITNESS: All he asked me to do was report to him,  
5 when I had my stuff--my samples at the different stages.

6 THE COURT: Okay, so you don't know.

7 THE WITNESS: No. I never reviewed Dr. Milligan's work.

8 THE COURT: Okay.

9 BY MR. HILLER:

10 Q Let's get back to when you had your stuff out and when it was  
11 stored away.

12 A Do you want me to tell you the dates when I performed the  
13 amplifications?

14 Q If it was out--if the material was out then--

15 A Yes. The known sample on the 25<sup>th</sup>--Margaret's known sample was  
16 amplified for the Profiler Plus system. The questioned sample or  
17 the stains--the question samples were amplified for the Pro-filer  
18 Plus system on April 5<sup>th</sup>. The Co-filer system was amplified for  
19 the questioned stains, also on April 5<sup>th</sup>. The known samples--  
20 Margaret's known sample was amplified for the Co-filer system on  
21 March 25<sup>th</sup>. At that point, the samples would be run on the  
22 genetic analyzers and then the data interpreted and compared and  
23 the results reported.

24 Q Was that done--was the genetic analysis done?

- 1 A After the amplification was completed. You take the amplified  
2 DNA and you run it on the genetic analyzers usually the  
3 following day.
- 4 Q Do you know if that was done on this case, or the 6<sup>th</sup> would have  
5 been the last amplification for the questioned stain?
- 6 A I can--the Profiler plus was run on March 26<sup>th</sup> for the known  
7 sample--Margaret's known sample. The Co-filer was also run on  
8 March 26<sup>th</sup>. The questioned samples were run on the 8<sup>th</sup>, the 9<sup>th</sup>,  
9 the 11<sup>th</sup>, the 12<sup>th</sup>, they were re--re-washed on the 16<sup>th</sup> of June,  
10 re-amplified on the 17<sup>th</sup> of June for both the PCT systems, and  
11 then again, I am talking about the question stain, and run on  
12 the genetic analyzer on the 19<sup>th</sup>, the 18<sup>th</sup>, the 28<sup>th</sup> for profiler  
13 plus and co-filer. The data--the statistical analysis was  
14 performed on July 3<sup>rd</sup>.
- 15 Q Once you finished running--amplified the DNA through the genetic  
16 analyzer, you don't need the DNA out to wait for the statistical  
17 report, correct?
- 18 A Correct.
- 19 Q So once the analysis was done on the 18<sup>th</sup> and the 19<sup>th</sup> of June?
- 20 A I believe the last date I gave you was the 28<sup>th</sup> of June.
- 21 Q The 28<sup>th</sup> as well. After that point with the evidence hadn't been  
22 taken out anymore?
- 23 A No.
- 24 Q In between all of these various dates that you've given us, was  
25 the evidence left out or was it put away?

1 A It was stored in a refrigerator in closed tubes--or freezer.  
2 Q Other than the overnight process of--I'm sorry, but I've lost  
3 the term, but when you put it in the incubator over night--  
4 A Yes.  
5 Q --on these procedures that were done on following days--  
6 consecutive days, would the DNA have been put away overnight?  
7 A If by meaning put away, being placed in a refrigerator or  
8 freezer, yes.  
9 Q Thank you, I have no further questions.  
10 A Thank you.

11 MR. GABRY: Two, I think.

12 RE-CROSS EXAMINATION

13 BY MR. GABRY

14 Q That refrigerator that Mr. Hiller spoke about, it's the same  
15 refrigerator that Mr. Milligan--Dr. Milligan would have put his  
16 samples in, but you have, I think you said, specific spots in  
17 the refrigerator that belong to you?  
18 A Actually we have many, many refrigerators and freezers in the  
19 laboratory. The only thing stored collectively would be the  
20 reagents which would be the refrigerator that would not contain  
21 any genetic DNA samples, forensic or known. Because of the  
22 location where we sit in the laboratory, we--to my knowledge we  
23 don't use the same refrigerator for the storage of our tubes,  
24 just based on, this refrigerator is closer to me and that  
25 refrigerator is closer to him. I don't--I'm not certain, but I

1           don't think we use the same refrigerator for the storage of our  
2           samples.

3 Q       So, it's not designed that way. It's designed for you to have  
4           your own refrigerator or there is just so many that some are  
5           closer to you than others?

6 A       Yes.

7 Q       Okay. That ended up being more than one or two questions because  
8           the other question that I had--Mr. Hiller started out, and again  
9           we are talking about degraded DNA and how--it certainly doesn't  
10          become something different at the standpoint that if a certain  
11          alleal you have a repeat of fourteen and fifteen, degrading that  
12          DNA doesn't change that fourteen to a thirteen or a fifteen to a  
13          seventeen, correct?

14 A       Correct.

15 Q       But, it can degrade away the genetic alleal at one of those  
16          spots, correct?

17 A       I make it completely disappear that could--yes, that could  
18          happen.

19 Q       So what could appear to be a two alleal spot on the loci with  
20          degrading could end up looking as a one alleal. In other words,  
21          I inherited eleven from both parents?

22 A       In extreme situation, yes,

23 Q       Thirty-six years ago is before you were born. End of questions.

24           MR. GABRY: Thank you, your Honor.

1                   THE COURT: That was not a question, so that is  
2 stricken. Thank you, ma'am, you may step down.

3                   THE WITNESS: Thank you, sir.

4                   (witness excused at 9:00 a.m.)

5                   THE COURT: We will stand in recess for a few moments.  
6                   Ladies and gentleman, this is one of those times where I do need  
7                   to take something up with the attorneys outside your presence, I  
8                   don't think it will take more than five or ten minutes. Please  
9                   go with her, thank you.

10                  THE LEGAL CLERK: All rise, please.

11                  THE COURT: Please be seated. You can step down,

12                  THE WITNESS: Thank you.

13                  THE COURT: Counsel can I see you at the bench please.

14                  (Bench conference at 9:01 a.m.)

15                  (Court resumes at 9:04 a.m.)

16                  THE COURT: I will take this matter up in chambers. I  
17                  will see counsel there.

18                  THE LEGAL CLERK: All rise, please.

19                  (Court in recess at 9:04 a.m.)

20                  (Private Chambers conference at 9:04 a.m.,  
21                  present at chambers conference was The Court, The  
22                  Court Clerk, The Legal Clerk, Mr. Hiller and Mr.  
23                  Gabry)

24                  PRIVATE CHAMBERS CONFERENCE

1                   THE COURT: All right--we are on the record now, is  
2                   that correct?

3                   THE COURT CLERK: We are private and on the record,  
4                   yes.

5                   THE COURT: All right, thank you. Counsel, this is a  
6                   chambers conference in this matter. There were--there was an  
7                   objection during the testimony of Ms. Thivault concerning  
8                   questions relating to a former supervisor of hers as I  
9                   understood it. You approached the bench and I gave up a  
10                  preliminary indication of my ruling and indicated that we needed  
11                  to take it up separately. I have asked Ms. Thivault to stay in  
12                  case the questioning is--is allowed. You have agreed that we  
13                  would do this as a chambers record as part of this case, is that  
14                  correct?

15                  MR. HILLER: That's correct.

16                  MR. GABRY: That is correct, your Honor, and I also  
17                  told my client and he understands.

18                  THE COURT: For the record we are doing this because  
19                  there is live media access in the Courtroom and we want to  
20                  possibly avoided any improper information getting out and  
21                  getting to the jurors.

22                  MR. GABRY: If it pleases the Court, your Honor, the  
23                  purposes of the questioning and when Mr. Hiller objected I had,  
24                  I believe I had laid a foundation that indicated that Charles  
25                  Barna--

1 THE COURT: Is it B-a-r-n-a?

2 MR. GABRY: B--

3 THE COURT: B--

4 MR. GABRY: B as in Boy, B-a-r-n-a, who was the  
5 supervisor of the forensic DNA laboratory at the time of this-  
6 this series of tests that are pertinent to this case, that  
7 meaning he was there in 2003 and all times prior to that and in  
8 fact, oversaw the development of the DNA lab. As I indicated  
9 through the questioning the error rate of the laboratory is  
10 handled, I believe she indicated, by the individual scientist,  
11 and when they experience an error they go to their supervisor  
12 and then discuss what that error might be, how to proceed, what  
13 to do relative to the handling of that error--the Court  
14 remembers the testimony. It came to be exposed, you Honor, and  
15 again, I received this information from the Michigan State  
16 Police by way of our discovery which Captain Michael Thomas, the  
17 forensic science division commander dated March 21, 2005,  
18 comments on the fact that Charles Barna who had successfully  
19 completed all external proficiency tests in which he  
20 participated with the exception of the proficiency test in 2003  
21 which was not completed satisfactory, resulted in his  
22 retirement.

23 THE COURT: This is the personal proficiency test for  
24 him?

1                   MR. GABRY: It is, your Honor. It is my understanding by  
2 way of information conveyed through various prosecutors in  
3 Michigan and what apparently had occurred was Mr. Barna had one  
4 of the lab scientists perform the proficiency test as to  
5 casework actually doing of the process and that was discovered,  
6 he retired as a result of that.

7                   THE COURT: The allegations he had is that one the  
8 scientist who worked for him take his personal proficiency test  
9 for him?

10                  MR. GABRY: Correct. It is clear from all of the  
11 information that I received that Mr. Barna did not do any  
12 testing on any of the exhibits, at least that I am aware of.

13                  THE COURT: In either Ruelas or Mixer?

14                  MR. GABRY: Correct. However, his position as the head  
15 of the lab as the individual setting and making these  
16 determinations is to whether the error should be dealt with or  
17 reported out, I believe made the fact that he had found himself  
18 in this difficulty with the State Police relevant for the jury  
19 in determining--making a determination to the credibility of the  
20 overall testing process, and that where I was going.

21                  THE COURT: And your objection?

22                  MR. HILLER: My objection first of all is relevance,  
23 your Honor, I don't think there is any relevance to--assuming  
24 for the sake of the argument that the facts represented by Mr.  
25 Gabry are accurate, but we will get to that in a minute because

1 I don't think they are accurate. Not that he's misrepresenting,  
2 that's the rumor that's flying around, but assuming that their  
3 accurate for the moment, I don't think there's any relevance to  
4 this information to this trial. Mr. Barna didn't do any  
5 testing, there were no errors reported to him on either case.

6 The COURT: She testified to that on the Ruelas case,  
7 is that--your representing that true on the Mixer case?

8 MR. HILLER: Also true on the Mixer case.

9 THE COURT: Okay.

10 MR. HILLER: By the time this whole Ruelas blood came  
11 up he--

12 THE COURT: He was gone.

13 MR. HILLER: He had retired, there's no relevance to  
14 it, it's basically is what this is, is Mr. Gabry trying to  
15 impeach the laboratory due to the reported action of an  
16 individual who worked there in the laboratory. Not an  
17 individual who worked on this case. The only involvement in  
18 this case that Mr. Barna has is he may have carried one sealed  
19 package from the front desk and put it in the refrigerator for  
20 Dr. Milligan to pick up.

21 THE COURT: In the Mixer case?

22 MR. HILLER: In the Mixer case, and we have the witness  
23 that sealed up the package and who initialed it at that time for  
24 the protocol to say that she did that, we have the officer  
25 standing there when she did that, and we have Dr. Milligan who

1 will say when I took it out of the refrigerator it was still  
2 sealed, which is why we are not calling Mr. Barna. So number one  
3 there's no relevance. It doesn't fit under impeachment under  
4 608 or 609. If it isn't relevant, it doesn't make a fact or a  
5 question any more or less probable under the applicable rules,  
6 and it is certainly fair more unfairly prejudicial that it is  
7 probated of anything. That's my first argument, assuming these  
8 facts are true. Now, here is what I have been told by Captain  
9 Thomas, and if we need to make him available I am sure they will  
10 make arrangements to make Captain Thomas or Inspector Durham  
11 available who is also worked on this.

12 THE COURT: Captain Thomas' role for the record is?

13 MR. HILLER: He is head of the forensic science  
14 division for the State Police. Inspector Durham is one of the  
15 inspectors who oversees the laboratory. What Captain Thomas told  
16 you was, number one this was not--when Charlie Barna retired it  
17 was not--it was not--he had earned his retirement, he could have  
18 retired at any time for whatever reason. There was no discipline  
19 imposed upon Charlie Barna. This was not a buy out that you  
20 sometime hear about, like you can either retire or we fire you  
21 that did not happen in this case. What happened was, the  
22 regulations at the time--the State Police regulations at the time  
23 required all personal within the lab, to take a proficiency test  
24 every 180 days, according to the rules set by the FBI. The FBI  
25 rules at that time required that people be tested--proficiency

1 tested every 180 days on the work they do. At the time that this  
2 occurrence happened, Charlie Barna was not bench work , he was  
3 the only supervising, and so his role in dealing with the  
4 science that was going on was to review the work of other  
5 scientists in the laboratory. So the proficiency test that he  
6 set for himself was to have another scientist do a proficiency  
7 test and then he reviewed those results himself because that's  
8 what he did ad that's what the regulations, at least in his  
9 opinion; that's what the regulations require. That changes the  
10 regulations since then. The State Police, nonetheless, thought  
11 it was a problem and it had become an issue internally with the  
12 State Police, but the circumstances are not as cut and dry as  
13 Mr. Gabry represents. I'm not questioning Mr. Gabry because I  
14 heard that rumor for months. That is flying all around the  
15 State. What I represented to the Court, that is what Captain  
16 Thomas explained to me about the situation and I think that-  
17 first of all, I think it's irrelevant under the worst of  
18 circumstances and I think its improper impeachment because there  
19 is no relevance and its way to unfairly prejudicial to be  
20 allowed into this Courtroom. Secondly, I don't think the fact  
21 are—or at least as clearly established that there was any wrong  
22 doing on Mr. Barna's part as Mr. Gabry has represented based  
23 upon what he's heard and it just doesn't seem to me to be a fair  
24 thing to do to allow this to be dragged into the middle of Court

1 to allow the laboratory to be dragged through mud that may not  
2 even exists.

3 THE COURT: Well, at the first level it's clearly no  
4 proper impeachment of this witness so the objection is sustained  
5 on that basis, but I'm going to go ahead and deal with another  
6 level which is the whether this is admissible and any evident.  
7 It's clearly a collateral matter. Its probative value is remote  
8 at best. Had there been some evidence that Mr. Barna performed  
9 any testing or reviewed any alleged error in either of these  
10 cases then I think the probated value might be increased. In  
11 this case, where the evidence as you represented to me, is that  
12 he had nothing to do with either Mixer or Ruelas samples,  
13 testing or error review. I think it's probative value is remote  
14 and prejudice clearly outweighs it and I am going to sustain  
15 the objection. Now, I've allowed you both considerable leeway--  
16 hours with this witness, because I assumed you wanted to educate  
17 the jury--

18 MR. HILLER: We're done.

19 MR. GABRY: We're done with that.

20 THE COURT: We're done with that. For now on let's get  
21 the testimony to these cases and not put the jurors to sleep  
22 again. I'll remind you of my old story about the trial judge in  
23 the middle of closing argument, the lawyer approached the bench  
24 and said, Judge, the juror in seat number three was asleep. To  
25 which, the Judge said, you put him to sleep, you wake him up.

This is a long case and I've given you leeway, but let's move on now, okay?

MR. GABRY: Okay, thank you.

MR. HILLER: Okay, thank you.

THE COURT: And we will conclude the record.

(Private chambers conference ended at 9:06 a.m.)

(Court resumes at 9:33 a.m.)

THE LEGAL CLERK: Washenaw County Trial Court is not back in session.

THE COURT: Bring in the jury, please.

THE LEGAL CLERK: All rise for the jury, please.

THE COURT: Be seated please. Call your next witness.

MR. HILLER: Denise Powell.

THE COURT: Ms. Powell come forward please, raise your right hand and face the clerk and be sworn.

THE COURT CLERK: Do you solemnly swear or affirm to tell the truth, the whole truth and nothing but the truth?

MS. POWELL: Yes, I do.

(witness sworn at 9:35 a.m.)

THE COURT CLERK: Have a seat right up there.

THE COURT: State and spell both your first and last names.

THE WITNESS: Denise Powell, D-e-n-i-s-e P-o-w-e-l-l.

THE COURT: Prosecutor.

MR. HILLER: Thank you, your Honor.

1 DENISE POWELL

2 DIRECT EXAMINATION

3 BY MR. HILLER

4 Q Good morning ma'am. By whom are you employed?

5 A I'm employed by the Michigan State Police.

6 Q In what capacity?

7 A Currently as a Sergeant.

8 Q How long have you been a police officer for the State of  
9 Michigan?

10 A Fifteen and a half years, approximately.

11 Q What is your current assignment?

12 A Assigned to the government security detail.

13 Q Prior to be assigned to your current assignment, where did you  
14 work?

15 A I was a detective at the Ypsilanti State Police Post and also a  
16 detective on a major case team in Washtenaw County.

17 Q What was the purpose of the major case team?

18 A Major case team is a multi-jurisdictional team in Washenaw  
19 County that our main objective was to investigate high profile  
20 crimes or major crimes in the county and we also worked on  
21 unsolved homicides.

22 Q Did there come a time during your assignment with either the  
23 major case team or at the Ypsi.(sic.) Post as a Post detective  
24 that you began to investigate the homicide of Jane Mixer?

25 A Yes, there was.

1 Q About when did you start your investigation?

2 A I started reviewing the case in 1999 and became actively  
3 involved in 2001.

4 Q As part of your investigation, did you visit Denton cemetery?

5 A Yes, I did.

6 Q Are you familiar with the boundaries of Washtenaw and Way  
7 County?

8 A Yes, I'm familiar with the boundary line between the two.

9 MR. GABRY: Your Honor, we offer to stipulate that the  
10 body was found within one mile of the county line if that will  
11 assist us in moving along.

12 MR. HILLER: That will save a few seconds.

13 THE COURT: That it was--

14 MR. GABRY: That is was one mile of the county line.

15 THE COURT: Okay.

16 BY MR. HILLER

17 Q Sergeant Powell, at some point in the course of your  
18 investigation, did you determine to remove some property from  
19 the long-term evidence storage facility of the State Police?

20 A Yes, in October of 2001.

21 Q What was your purpose of removing the evidence from the storage  
22 locker?

23 A The purpose was to see if there was any evidence that could be  
24 submitted to the crime lab for a DNA analysis.

1 Q Were you looking for any particular items or certain things that  
2 you thought would be useful to take to the lab?

3 A Yeah. Anything that might have hair fibers, blood stains, any  
4 type of item that we felt could have been in contact with the  
5 potential suspect.

6 Q The long-term evidence facility that you went to is located  
7 where?

8 A It's located on Collins Road in Lansing.

9 Q What's the procedure when you want to take something out of  
10 long-term storage?

11 A The procedure is to contact the detectives that are in charge of  
12 the long-term storage unit, which we did on October 24, 2001 and  
13 there was detectives that accompanied us. They actually pulled  
14 the evidence from the long-term storage vault and witnessed our  
15 going through the property in front of them.

16 Q Was that done in this case?

17 A Yes, it was.

18 Q Can you tell the jury, please, what property you removed from  
19 the long-term storage facility?

20 A We removed on that date, I believe, seven items of property. One  
21 being an envelope that contained hair and finger scrapings from  
22 the victim. An envelope that contained a pubic hair off the  
23 victims pantyhose. A packet containing blood that was removed  
24 from the victims left hand.

1 Q Can you stop there for just a second? Can you describe this  
2 package for us, please?

3 A I believe the packet with the blood off the left hand was a  
4 white paper packet.

5 Q Please continue, what else did you get?

6 A We also removed the victim's pantyhose, a towel that had dried  
7 blood on it, a packet of hairs that were removed from the  
8 victim's shirt, and also a suitcase that belonged to the victim.

9 Q And what did you do with these items?

10 A Once they were removed from the packages that they were in, we  
11 documented them on property report sheets to keep track of the  
12 chain of custody, and then we transported them or I transported  
13 them directly to the state police lab in Lansing.

14 Q You—you we saying we, were you with someone?

15 A I was with my partner at the time Detective Sergeant Fred  
16 Farcus.

17 Q Did you both take the property over to the State Police  
18 Laboratory?

19 A We both went and I maintained the custody, in my possession and  
20 I documented the items.

21 Q Did you open up any of the articles?

22 A No.

23 Q Once you got to the laboratory, where--where is the, how far  
24 away are we talking as far as the laboratory and Collins Rd?

1 A I don't know that distance in miles but it is probably about a  
2 Ten minute drive.

3 Q You didn't stop anywhere?

4 A No.

5 Q You maintained custody of these items the whole time?

6 A That's correct.

7 Q When you got to the laboratory what did you do with them?

8 A At the laboratory they have a counter where you check in your  
9 evidence, and once that evidence was checked in, I placed it into a  
10 temporary property locker, which is located in the lobby of the  
11 lab, and then secured that locker.

12 Q I want to show you three items that were marked and admitted.  
13 Peoples Exhibit number 31, Peoples Exhibit number 32A, and  
14 Peoples Exhibit number 35. Inspect those and tell me if those  
15 are articles that you took from (INAUDIABLE)

16 A Yes this is, Exhibit 35 is the victim's suitcase, that was taken  
17 to the laboratory for latent print examination. Exhibit 32A is  
18 the package that contains the nylon pantyhose from the victim.

19 Q You also took that to the laboratory?

20 A And this was taken to the laboratory for DNA analysis, Exhibit  
21 31 is the--it's a yellow and white striped towel that was, it  
22 has dried blood stains on it which I had transported for DNA  
23 analysis also.

24 Q Now those packages have been opened and currently are opened,  
25 were they in that condition when you took them?

1 A The--everything was sealed in its own packet, the pantyhose  
2 were, we removed them from a box, larger box that was sealed and  
3 put them in an envelope to submit those to the lab. The  
4 suitcase was not in a plastic package at the time, but  
5 everything else was sealed and secured.

6 Q And that is--that is the way you delivered them to the lab?

7 A That's correct.

8 Q Now what's the procedure when you get to the lab, for putting  
9 things in storage lockers there?

10 A Once you go into the lab, the lab counter attendant would  
11 document what you bringing, the case number into the computer  
12 and give you a receipt for that, and then they will tell you  
13 which locker to put the evidence into, which is just a bunch of  
14 lockers--school lockers--smaller lockers and you will--you  
15 personally--I will personally put the evidence into two separate  
16 lockers. The DNA evidence went into one locker and the suitcase  
17 went into a second locker and then that locker is shut and  
18 locked. There are no keys to it that anybody can have access to  
19 it other than lab personal. Then, I believe in Lansing, it is a  
20 sticky note with the lab technician's name that gets placed on  
21 the locker.

22 Q So it's directed to the attention of a particular technician?

23 A At the time of--at the time you check the evidence into the lab  
24 it is assigned to a technician and then it is documented on your  
25 lab receipt.

1 MR. GABRY: Your Honor, I have no objection to the  
2 purposed exhibits that Mr. Hiller is admitting, at this time.

3 BY MR. HILLER

4 Q At some point, Sergeant Powell, did your investigation come to  
5 focus on a person by the name of Gary Leiterman?

6 A Yes, it did.

7 Q As part of your investigation was birth certificate for Gary  
8 Leiterman?

9 A Yes, it was.

10 Q I would like to show you People's purposed exhibit 66. Tell us  
11 what that document is, please.

12 A This is a certified copy of a birth certificate for Gary Earl  
13 Leiterman, born September 11, 1942 and it's from the county of  
14 Washtenaw.

15 MR. HILLER: I move for the admission of People's  
16 exhibit 66.

17 THE COURT: Admitted without objection.

18 BY MR. HILLER:

19 Q Sergeant Powell, up at the top there is a space to be filled out  
20 if this was a multiple birth. Does it indicate if this was a  
21 birth a twins or triplets or anything?

22 A No, it does not.

23 Q Did you also obtain from the Wayne County Register of Deeds a  
24 certified copy of warranted deeds for 38233 Rickhman Court,  
25 Westland, Michigan?

1 A Yes, I did.

2 Q I would like to show you People's exhibits 66 and 67, can you  
3 view those please and tell me if you've seen them?

4 A Yes, I have. I obtained these documents from the Register of  
5 Deeds in Wayne County. Exhibit 66 is a warranty deed showing the  
6 purchase of property at 38233 Rickham Court in Westland,  
7 Michigan, purchased by Gary E. Leiterman from Century Homes  
8 Incorporated on December 2, 1968. Exhibit 37 is a warrant--a  
9 certified copy of a warranty deed, also out of Wayne County  
10 showing the sale of 38233 Rickham Court in Westland, Michigan  
11 from Gary E. Leiterman to June R. Hampton dated June 22, 1973.

12 Q Does the State Police maintain records of firearms that are  
13 registered in this state--hand guns that are registered in this  
14 state?

15 A Yes. Our central records division maintains those records.

16 Q Did you obtain any documents pertaining to the handgun owned by  
17 Gary Leiterman in the late '60's?

18 A Yes, I did.

19 Q I would like to show you Peoples purposed exhibit 38 and ask I  
20 you recognize that?

21 A Yes, I do.

22 Q What is it?

23 A Exhibit number 38 is a certification of a safety inspection  
24 certificate and also a license to purchase a firearm, both in  
25 the name if Gary E. Leiterman, showing a date of purchase

1                   September 2, 1967 of a Ruger single 6 shot-gun revolver, 22-  
2                   caliber and that weapon was inspected--registered actually--  
3                   actually this shows the purchase date was September 2, 1967 and  
4                   it shows the name Gary E. Leiterman living at 6975 Fosdick Road  
5                   in Saline, Michigan.

6                   MR. HILLER: Your Honor, I move for the admission of  
7                   People's exhibit 38.

8                   THE COURT: Do you intend to move 36 and 37 as well?

9                   MR. HILLER: Yes.

10                  THE COURT: Without objection as previously stated 36,  
11                  37 and 38 are admitted.

12 BY MR. HILLER:

13 Q               Sergeant Powell, I am going to show you exhibit 38 again ask you  
14               to look at the top portion of the last page and ask you if it  
15               shows a date of birth for Gary Leiterman?

16 A               Date of birth is listed as September 11, 1942.

17 Q               Is that the same date of birth that shows on the birth  
18               certificate?

19 A               Yes, it is.

20 Q               Sergeant Powell did--as part of your investigation, did you have  
21               occasion to obtain and execute a search warrant on the home of  
22               Gary Earl Leiterman on December 14, 2004?

23 A               Yes, I did.

24                   MR. GABRY: May we approach, your Honor?

25                   THE COURT: Yes.

1 (bench conference at 9:56 a.m.)

2 (Court resumes at 9:57 a.m.)

3 THE COURT: Please proceed.

4 BY MR. HILLER

5 Q Sergeant Powell, on December 14, 2004, you indicated that you  
6 obtained a search warrant for the defendant's home?

7 A Yes.

8 Q Where was that home located?

9 A I can't recall his address off hand, but it's in Pine Grove  
10 Township.

11 Q In what county?

12 A I would have to review my--the search warrant for the county,  
13 I'm sorry.

14 Q Was it in Washtenaw County?

15 A No, it was not in Washenaw County.

16 Q What side of the State?

17 A It was on the West side of the State near Gobles, Michigan.

18 Q Did you locate any document with handwriting on them during your  
19 search?

20 A I located a piece of line paper with handwriting--a handwritten  
21 type story located off in a shed in the back porch of the  
22 residence.

23 Q Were you looking for handwriting?

24 A During that search warrant we were looking for stories-in  
25 particular, writing from the defendant.

1 Q I am going to hand you a copy of the (INAUDIABEL) to see if that  
2 helps your recollection in the address.

3 A Yes, I apologize for that. The address is 28495 Northern Bluff  
4 Drive, Pine Grove Township, Van Buren County, the State of  
5 Michigan.

6 Q Take a look at People's purposed exhibit 38, have you seen that  
7 before?

8 A Yes, this is a sheet of lined paper that I seized and located in  
9 the shed off the back porch of the residence.

10 Q Had that location been searched before by the State Police  
11 office?

12 A Yes, it was searched prior to that.

13 Q In that occasion how did you--how did the officers get access to  
14 the residence?

15 A That was also during an execution of a search warrant.

16 Q I mean, how did they get in? Did they break the door in or did  
17 they have a key?

18 A Both times--the first search warrant we had entry with a key  
19 provided by Mr. Leiterman.

20 Q The person who gave you the key to that residence, do you see  
21 him in Court?

22 A Yes.

23 Q Can you point to him, please?

24 A Mr. Leiterman in the blue suit sitting at the defendant table.

1                   MR. HILLER: Your Honor, may the record reflect the  
2 identification of the defendant?

3                   THE COURT: She did.

4                   MR. HILLER: I move for the admission of People's  
5 exhibit 48?

6                   MR. GABRY: I object your honor, as to and unknown  
7 writing there's no foundation to the latest of who the author of  
8 that is, how is has been authenticated. I believe at this point  
9 in time it is a document, it says something. I'm not sure how  
10 the prosecutor proposes to show that--

11                  THE COURT: What is the purpose of its admission?

12                  MR. HILLER: The purpose of its admission, your Honor,  
13 is that it was used along with several other documents for  
14 purpose of handwriting used by the question document unit of the  
15 Michigan State Police.

16                  THE COURT: And do they have other as well which they  
17 compared?

18                  MR. HILLER: They had several others including several  
19 examples of known handwriting, including the defendant's  
20 signature as well as a couple others that were obtained--

21                  THE COURT: I assume--

22                  MR. HILLER: -- under control.

23                  THE COURT: -- there will be testimony tying this to  
24 the other exemplars?

25                  MR. HILLER: Yes.

1 THE COURT: All right, the objection is overruled 48 is  
2 admitted based on the representation.

3 MR. HILLER: Sergeant Powell, I have no further  
4 questions for you.

5 THE COURT: Cross examination.

6 MR. GABRY: Thank you, your Honor.

7 CROSS EXAMINATION

8 BY MR. GABRY

9 Q Sergeant Powell, you mentioned that you started reviewing the  
10 case in 1999?

11 A That is correct.

12 Q What did that entail?

13 A Just reading it when I had time, the file was located at the  
14 Ypsilanti post.

15 Q And by--when you say the file, is that the police report or what  
16 is that?

17 A The police report.

18 Q At that time--had you recently been assigned to the Ypsilanti  
19 post?

20 A Right, I had been promoted to the Ypsilanti post in 1999.

21 Q How much--when you say reading the file are you talking about  
22 the three file cabinet of material that are back there?

23 A No, just the binder with the--a copy of the original police  
24 report from 1969.

1 Q And so you went through that--now in reading that and in going  
2 over that file had it been--was it clear to you the case had  
3 been reopened at some point in time prior to your review of the  
4 file?

5 A Yes, in 1996.

6 Q What happened in 1996?

7 MR. HILLER: Your Honor, I think that calls for  
8 hearsay.

9 BY MR. GABRY

10 Q You indicated that after your review of the file you began to  
11 look for the evidence at the long term storage?

12 A No, by reviewing the file, I was aware that the evidence was in  
13 the long term storage, and when it--when a decision was made to  
14 submit the evidence for potential DNA is when we went to the  
15 long term storage.

16 Q And we, as your partner?

17 A Detective Farcus and I.

18 Q And who made the decision on what property to remove from long  
19 term storage?

20 A Between myself, Detective Farcus and the two detectives that  
21 were there just by reviewing the items between the two of us, we  
22 made a decision on what to take.

23 Q Okay, in going through the file and in looking at the, I guess  
24 property receipts that would have been associated with the  
evidence in the long-term storage unit, did you ever--were you

1 ever able to determine the whereabouts of the cigarette butt  
2 acquired by George Hine, back in 1969?

3 A No, I saw that there had been a cigarette butt seized, but I was  
4 unable to locate it.

5 Q Would that had been a type of item that you would have wished to  
6 acquire and submit for DNA analysis?

7 A Yes, if we would have located it, we would have submitted it.

8 Q We've heard testimony from Earl James about the extent and the  
9 amount of work that went into trying to gather all of the  
10 evidence and put it in one place.

11 A Okay.

12 Q Was it all in one place then?

13 A What do you mean by then?

14 Q When you went to look for it in 2001?

15 A Like I said, the detectives there that are in charge of the  
16 long-term storage pulled out two boxes and the evidence that I  
17 reviewed was contained within those two boxes.

18 Q Did other evidence come to you from other locations?

19 A I don't recall any other evidence other than what was in those  
20 two boxes.

21 Q What about the fired bullets? Where were they? Were they a part  
22 of that long-term evidence that had been stored?

23 A The fired bullets were at--were held at the Ypsilanti State  
24 Police Post and on that date, October 21, 2001, we took those

1       bullets to the long-term storage so they could be held with the  
2       other evidence in the case.

3 Q       Prior to being made aware of Mr. Leiterman as a suspect in this  
4       case, you were made aware of additional information by Detective  
5       Schroeder, were you not?

6 A       Yes.

7 Q       Can you tell the jury what that related to as to another  
8       suspect?

9                   MR. HILLER: Your Honor, that is hearsay.

10          MR. GABRY: Your Honor, this officer's investigation—  
11        this officer is the one that went out and talked the individuals  
12        and spoke with them. I am not asking her what she learned from  
13        that. I am asking her what she did, who she identified.

14          MR. HILLER: I thought the question that you just asked  
15        was, what did Sergeant Schroeder tell you?

16                   THE COURT: Rephrase the question.

17 BY MR. GABRY

18 Q       Did information come to you to identify an individual that you  
19       sought out as being a potential suspect in this case?

20                   MR. HILLER: Again, your Honor, I think that calls for  
21       hearsay.

22                   THE COURT: Ask her what she did.

23 BY MR. GABRY

24 Q       What did you do?

1 A I became aware that the blood off the left hand result--the  
2 analysis of that resulted in the COTIS hit of John David Ruelas.

3 Q So before you began your background investigation and obtained  
4 those documents relevant to Mr. Leiterman, you conducted a  
5 similar investigation into John David Ruelas, is that correct?

6 A That's correct.

7 Q And you--I--you were able to locate him, is that correct?

8 A Correct.

9 Q Did you talk with him?

10 A Yes, I did.

11 Q Did you try to determine where he lived in 1969?

12 A Yes, I did.

13 Q What did you determine?

14 A I determined from what he told me that he lived--that he just  
15 moved--from what he recalled he had moved with his mother from  
16 Indiana to the Detroit area around that time frame.

17 Q You talked the other relatives of Mr. Ruelas also, is that  
18 correct?

19 A Correct.

20 Q You established a family history for Mr. Ruelas, correct?

21 A As well as I could, yes.

22 Q You determined that he had four--

23 MR. HILLER: I'm sorry, your Honor, this is all  
24 hearsay. May we approach?

1                   THE COURT: No, let's--let's just get to what her  
2                   investigation reveals. She can give the fact about him if they  
3                   are not in dispute what are they, lets find out. How old was he?

4                   THE WITNESS: In 1969 he was four--he was four years, I  
5                   believe, eight months old. He was under five.

6 BY MR. GABRY

7 Q               Did he have uncles?

8 A               He had four uncles on his mother's side.

9 Q               And were all of those uncles alive in March of 1969 based on  
10                 your review of date of birth and death records?

11 A               Yes.

12 Q               Would one of them have been a name--a person by the name of  
13                 Gilbert Pacheco?

14 A               Yes.

15 Q               Fred Pacheco?

16 A               Yes.

17 Q               Robert Pacheco?

18 A               Correct.

19 Q               And James Lee Pacheco?

20 A               Correct.

21 Q               In your review of the files did you ever find through any tips  
22                 any reports any documentary evidence associating any of those  
23                 names with the 1969 and months preceding that investigation?

24 A               If--could you rephrase that, please?

1 Q Did those names ever come up when you looked at--back through  
2 the case file?

3 A No.

4 Q Did Gary Leiterman's name ever come up as you looked back  
5 through the case files?

6 A No.

7 Q As you've gone through this investigation, have you ever  
8 determined a link other than the DNA profiles associated with  
9 Jane Mixer's body between Gary Leiterman and John David Ruleas?

10 A No, I was unable to determine a link between those two.

11 Q Were you able to determine a link between Gary Leiterman and any  
12 of the more adult members of the Ruelas family?

13 A No.

14 Q You were able to determine that little John's father was still  
15 alive at the time of Jane Mixers death, is that correct?

16 A Correct.

17 Q And he had been an individual who had had some criminal check or  
18 past?

19 A He--from what I had been told from John, he had a criminal past.

20 Q He ended up dying a violent death--

21 THE COURT: We are going to far with this.

22 MR. GABRY: Okay.

23 BY MR. GABRY

1 Q Now, at that time, prior to Mr. Leiterman's name coming up,  
2 there was efforts made to locate firearms associated with the  
3 names I just mentioned, is that correct?  
4 A That's correct.  
5 Q One such firearm was in attempt to locate a firearm reported to  
6 have been owned by Robert Pacheco?  
7 A That's correct.  
8 Q Now, that occurred back in the, July. What I liked to--I've had  
9 a chance to review the police report and, was there an inquiry  
10 made by you as to the investigative value of further attempts to  
11 identify Robert Pacheco handgun?  
12 A Did I try--I guess are you asking did I try to identify Robert  
13 Pacheco's handgun?  
14 Q I am asking you if you tried to determine through this  
15 investigation whether is was worth the effort to try to identify  
16 the gun or not?  
17 A I guess in a round about way--I'm not really sure what your  
18 asking but--  
19 Q What I am asking you, without going into any hearsay statements  
20 did you ask Detective Sergeant Schroeder to check with the  
21 Lansing lab personal in firearms to determine if there's any  
22 evidentiary value to Robert Pacheco's 22 caliber weapon or any  
23 other 22 caliber weapon associated to the subject's in this  
24 case, if it were to be recovered or made available. Did you ask  
25 him that?

- 1 A Yes, I did.
- 2 Q You had an opportunity to interview a Fredrick Pacheco, is that
- 3 correct?
- 4 A Yes, I did.
- 5 Q Did Mr. Pacheco not identify to you a 22 caliber pearl handled
- 6 firearm that had been taken from him by Gilbert?
- 7 A That's what he told me, yes.
- 8 Q Did you make any efforts to try to track down that 22 caliber
- 9 pearl handled firearm?
- 10 A Other than the statement he provided which was, that it was
- 11 taken by Gilbert, that he wasn't able to provide any serial
- 12 numbers.
- 13 Q That was the extent of it?
- 14 A I had no way to track it.
- 15 Q I want to understand that Peoples Exhibit 48 was something that
- 16 you found--you personally found?
- 17 A Yes, I did.
- 18 Q Where did you personally find this?
- 19 A There was a small shed located right outside the door of the
- 20 lower level of Mr. Leiterman's home and within that--I call it a
- 21 shed or storage unit, is where I found it.
- 22 Q Now you mentioned in response to Mr. Hiller's question that,
- 23 that area had been searched earlier?

1 A There had been a search warrant conducted at the residence on a  
2 previous date and that shed was searched during that search  
3 warrant.

4 Q Did you search the shed?

5 A No, I did not.

6 Q Did you--do you know who searched the shed?

7 A No, I don't recall. I was not present during that search  
8 warrant.

9 Q So you haven't identified the person who supposedly looked in  
10 that area, and talked with them about where you specifically  
11 looked?

12 A I believe, if it's documented in my report but I believe that--  
13 and actually I am not a hundred percent it is documented in my  
14 report then--I don't recall specifically who was in that shed.

15 Q You were aware of the fact that Mr. Leiterman was not around  
16 that home from the date of that first search warrant until this  
17 search warrant, correct?

18 A That's correct.

19 Q Through out and up until you received this new information  
20 relative Mr. Leiterman, that focus of that investigation had  
21 been on John David Ruelas and any associates of his, is that  
22 correct?

23 A That's correct.

24 Q In all of those contacts, ma'am, various relatives you spoke  
25 with, the efforts to determine where he was in his movements,

1 did you find any connection with John David Ruelas and Jane  
2 Mixer, other than what had been reported out of the Michigan  
3 State Police lab?

4 A Not from my investigation. I was unable to.

5 Q As far as living, they didn't appear to live anywhere near each  
6 other?

7 A No. From what I was told and from what I learned through my  
8 investigation, I could not determine that.

9 Q You mention to the jury that one of the items that was removed,  
10 was an envelope that contained a pubic hair from the pantyhose?

11 A That's correct.

12 Q That pubic hair is not identified as belonging to Gary  
13 Leiterman, is that correct?

14 A I believe--I do not believe it was identified as belonging to  
15 him.

16 Q There were no fingerprints developed from the crime scene or any  
17 of the property that had been associated with Gary Leiterman, is  
18 that correct?

19 A That's correct, none that were associated with him, no.

20 Q You mentioned in response to Mr. Hiller, he held up the  
21 pantyhose in a manila envelope, is that what it was packaged in  
22 when you received it from long-term storage?

23 A From what I recall, the clothing was together in one of these  
24 larger boxes and--I don't recall specifically if it was in an

1 envelope or if I had put it into an envelope, but it had been  
2 sealed and secured in a larger box.

3 Q With other items in that box?

4 A With other sealed and secured items.

5 Q So was each item individually packaged, is that what you're  
6 saying?

7 A There was numerous packages. I don't know if there was other  
8 stuff that was packaged together. The stuff that I took was  
9 individually packaged.

10 Q You just indicated that you had to remove the pantyhose and  
11 individually package them?

12 A I said--I said I don't recall if they were in that envelope or  
13 if I put them into that envelope.

14 Q What other items were in that box?

15 A There was numerous pieces of evidence all packaged.

16 Q A gray coat?

17 A Like, I said, I don't recall specifically.

18 Q Your contact with the case, continued beyond just--well, let me--  
19 --that was terribly drafted, and I will strike it. Did you ever  
20 obtain information about another stocking that had been acquired  
21 into evidence at some time, and by stocking I mean a single  
22 nylon?

23 A I'm aware that on one of the property reports by Detective James  
24 there was a stocking--a woman's stocking documented on that.

25 Q The one that you took--did you take one to the lab at this time?

- 1 A I did not.
- 2 Q You did not. You didn't take any phone books to the lab?
- 3 A No.
- 4 Q Was the extent of your trip to the lab, these items that we've
- 5 talk about here in Court this morning?
- 6 A That is the extent of what I took to the lab.
- 7 Q You mentioned to the jury that on the morning of the first
- 8 search warrant, you obtained the key to Mr. Leiterman's house
- 9 from Mr. Leiterman?
- 10 A Yes.
- 11 Q You talked with Mr. Leiterman that day, is that correct?
- 12 A That's correct.
- 13 Q You and Detective Eric Schroeder who is who--how is he
- 14 affiliated with this case?
- 15 A Detective Schroeder was a detective that had been at the
- 16 Ypsilanti State Police post as a trooper and he assisted on this
- 17 case back in 1996 and then he was transferred to the violent
- 18 crimes unit in Lansing. He was one of the detectives that was in
- 19 charge of the long-term storage property.
- 20 Q Where did you meet Mr. Leiterman that day?
- 21 A We met him at his residence.
- 22 Q Did you have an opportunity to talk to him that day?
- 23 A Yes.
- 24 Q You spent about five hours talking to him?
- 25 A About five hours or so.

1 Q Did you talk to him at his house?

2 A No, we conducted an interview of him at the Paw-Paw State Police

3 Post.

4 Q You asked him to accompany you over there?

5 A That's correct.

6 Q And he did?

7 A Yes, he did.

8 Q Was he cooperative?

9 A He was cooperative, yes.

10 Q The handgun evidence, I will call it, the two--I think it's one

11 exhibit with two documents on it, is that correct?

12 A Yes.

13 MR. HILLER: Yes, the certification with two additional

14 sheets attached to it.

15 BY MR. GABRY

16 Q One of them is, when somebody purchases a handgun in the state

17 of Michigan, one of those documents pertain to that, correct?

18 A Right. One was a license to purchase a handgun.

19 Q How does one obtain that license?

20 A I can tell you obtain it currently. They generally go to the

21 Sheriff's department and fill out the application. Other than

22 that, I don't know the process of it.

23 Q So they go into a police department to fill it out?

24 A Correct.

25 Q It's not the kind of thing that can be done--I guess, faked?

- 1 A What do you mean?
- 2 Q Could I go in to obtain a license to purchase a gun and say I'm  
3 Steve Hiller, and get it?
- 4 A I would imagine they ask for identification, I don't--I'm sure  
5 you have to have identification but I don't know the procedures  
6 at the Sheriff's department.
- 7 Q In fact, then that record, I mean it's been thirty-six, seven,  
8 eight years it's been kept permanently?
- 9 A Our records division in Lansing has achieved records of that,  
10 yes.
- 11 Q We register handguns in this state?
- 12 A Correct.
- 13 Q Mr. Leiterman was a lawful owner and purchaser of a handgun in  
14 this state in 1967?
- 15 A According to those documents, that is correct.
- 16 Q Now, would part of your aspect of the investigation to be--to  
17 try to find that gun?
- 18 A Yes.
- 19 Q Have you?
- 20 A We have--I have.
- 21 Q You found the gun?
- 22 A I've attempted to find the gun.
- 23 Q Have you found it?
- 24 A No.

1 Q Where did--did you go to the and contact the Van Buren County  
2 Sheriff's department been contacted to determine if reports  
3 that-if reports were made that those guns were stolen?

4 A A contact was made but not by myself.

5 Q But as far as your role in the investigation, as one of the lead  
6 detectives, you were able to verify--it was verified that the 22  
7 Ruger was reported stolen back in '83 or seven?

8 A The police--the Van Buren County Police report that I reviewed  
9 said that Mr. Leiterman reported a Ruger 22 caliber gun was  
10 stolen. From what I recall, he did not know the serial number of  
11 the gun. The serial number was not listed in the police report  
12 but he reported a Ruger 22 caliber that had been stolen.

13 Q In you review of the case file, was there any indication of  
14 activity into investigating this homicide around that time?

15 A The--I guess you need to rephrase that for me.

16 Q You went over the process, you mentioned once when it had been  
17 reopened, back at the time that this gun had been reported  
18 stolen, had there been any opening of the case? Any inquiries  
19 being made?

20 A In 1987?

21 Q Correct.

22 A Not that I recall.

23 Q Throughout the course of the investigation have you made efforts  
24 to locate a station wagon and determine whether or not my client  
25 drove a station wagon in March of 1969?

1 A I asked him if he had a station wagon and--

2 Q I understand that you asked and you also tried to find out  
3 without asking him, didn't ya?

4 A I--well, I did what I could to see if he owned any station  
5 wagons.

6 Q Were you able to determine if in March of 1969 he owned a  
7 station wagon?

8 A From the information available that I could find, I could not  
9 determine that.

10 Q We don't keep VIN--vehicle identification number records that  
11 long, here in the state?

12 A Well, I contacted Secretary of State and they advised after ten  
13 years everything is purged.

14 MR. GABRY: If I could have one second, your Honor.

15 THE COURT: Okay.

16 MR. GABRY: Thank you, your Honor.

17 THE COURT: Any further questions, prosecutor?

18 RE-DIRECT EXAMINATION

19 BY MR. HILLER

20 Q Mr. Gabry asked you about Robert Pacheco and to just refresh our  
21 recollections that are an uncle of John Ruelas?

22 A Yes, it is.

23 Q Where you able to determine, first of all, if Robert Pacheco is  
24 still alive?

25 A He is deceased.

1 Q When you were asked about Robert Pacheco and firearms by Mr.  
2 Gabry, he asked you if you had made inquiries whether or not it  
3 was useful from an investigative standpoint to try to find those  
4 weapons and submit them for comparison. Why did you--why did you  
5 make that inquiry? Why did you ask that question?

6 A I wanted to determine if efforts to find the weapons would be  
7 fruitful if he owned a weapon, 22 caliber weapon if they could  
8 be compared to the bullet fragments that were recovered from  
9 Jane Mixer.

10 Q Now did you check, you've already explained to us that the  
11 Michigan State Police have a central--a central records unit  
12 that does keep records of firearms. Did you check with the  
13 central records unit for firearms registered to Robert Pacheco?

14 A Yes I did.

15 Q Did you find any evidence that Robert Pacheco owned a handgun  
16 or--well first of all, are all firearms registered in the State  
17 of Michigan or is it just handguns?

18 A I believe it is just handguns.

19 Q Did you find any evidence that Robert Pacheco owned a handgun in  
20 1969?

21 A Yes I did--I'm sorry no I did not, not in 1969.

22 Q Before 1969?

23 A No, no I did not.

24 MR. HILLER: I have nothing further.

25 THE COURT: Anything further Mr. Gabry?

1 MR. GABRY: No, your Honor, thank you.

2 THE COURT: You may step down.

3 (Witness excused at 10:30 a.m.)

4 THE COURT: We're going to take a break at this time.

5 Ladies and gentleman I have another matter that I need to take  
6 up briefly. We will be in recess for approximately 15 minutes,  
7 please go with Ms. Washington.

8 THE LEGAL CLERK: All rise, please.

9 (Court in recess at 10:31 a.m.)

10 (Court resumes at 11:08 a.m.)

11 THE LEGAL CLERK: The Washenaw County Trial Court is  
12 now back in session.

13 THE COURT: Bring the jury.

14 THE LEGAL CLERK: All rise for the jury, please.

15 THE COURT: Please be seated. Prosecutor calls your  
16 next witness.

17 MR. HILLER: Thank you, your Honor. People call Eric  
18 Schroeder.

19 THE COURT: First stop there if you would, face the  
20 clerk and raise your right hand.

21 THE COURT CLERK: Do you solemnly swear or affirm to  
22 the truth, the whole truth and nothing but the truth?

23 MR. SCHROEDER: I do.

24 (witness sworn at 11:10 a.m.)

25 THE COURT CLERK: Have a seat right up there.

1                   THE COURT: State and spell both your first and last  
2 names.

3                   THE WITNESS: Eric Schroeder, E-r-i-c S-c-h-o-e-d-e-r.

4                   THE COURT: Prosecutor.

5                   MR. HILLER: Thank you.

6                   ERIC SCHROEDER

7                   DIRECT EXAMINATION

8 BY MR. HILLER

9 Q       By whom are you employed, sir?

10 A      The Michigan Department of Safe Lease.

11 Q      In what capacity?

12 A      A sergeant in the violent crimes unit.

13 Q      How long have you been a trooper for the State Police?

14 A      Twelve years now.

15 Q      Upon going into the violent crimes unit, did you work at the  
16 Ypsilanti post?

17 A      Yes, I was posted there from '93 to '98.

18 Q      How long have you been a detective sergeant?

19 A      Since April of 2000.

20 Q      What's the violent crimes unit?

21 A      The whole violent crime unit consists of three detective  
22 sergeants; myself, and both of my two partners. We have a  
23 variety of tasks. Primarily we are involved in a support role to  
24 other agencies or other parole officers that would request our  
25 services for input, primarily in regard to homicide or sexual

1 assault cases. Myself--also, I am the State coordinator for the  
2 ViCAP program which is the Violent Criminal Apprehension report.  
3 It's a data base program the FBI put together several years ago  
4 and the majority of the cases in that program are homicides;  
5 both solved and unsolved. It's called a behavioral driving  
6 database. What we are trying to do is to match up unsolved  
7 homicides to solved--or a solved homicides with known offenders,  
8 or so forth. We are also custodians for the long-term evidence  
9 vault. It's located there at the facility in Lansing. We are  
10 also involved in case assessment--overviews, which a lot of  
11 people would refer to as behavioral profiling, but we would do  
12 that and also thread assessments from time to time for different  
13 agencies.

14 Q At some point, did you offer or provide assistance to  
15 Lieutenant--Sergeant Powell regarding the investigation of the  
16 Jane Mixer homicide?

17 A Yes.

18 Q When did you first become involved with that investigation?

19 A With Detective Sergeant Powell? I don't believe I recall the  
20 exact date. I believe it was late 2001. Herself and Detective  
21 Greg Farckus came up to the long-term evidence vault and we had  
22 a meeting up there to review--going through the property with  
23 the possibility of submitting the evidence that we had in  
24 stored at the vault to the lab for DNA analysis.

- 1 Q When you were a trooper at the Ypsilanti post, had you been  
2 involved in other portions of the investigation?
- 3 A Yes, as a Trooper Investigator there, in mid to late 1996 to  
4 early 1997, I assisted the Trooper Investigator--Troop--Trooper  
5 Christie Gomeraz who had actually been assigned to do follow up  
6 on that case.
- 7 Q Did you, during the course of your investigation, come--obtain  
8 or attempt to obtain DNA samples from police officers who  
9 investigated the case--processed the scene back in 1969 for  
10 purposes of getting elimination DNA samples?
- 11 A That's correct, yes.
- 12 Q Did you try to locate Trooper Lalone?
- 13 A Yes.
- 14 Q And were you able to get a DNA sample from Trooper Lalone?
- 15 A No, I found out that he was deceased.
- 16 Q The name, Detective Sergeant Canada, who was an Ann Arbor  
17 detective, has come up. Did you try to locate Detective Sergeant  
18 Canada?
- 19 A Yes, I contacted Ann Arbor P.D. (sic.) and they advised me that  
20 he was also deceased.
- 21 Q Robert Hendricks names has come up as the pathologists that  
22 worked the case, did you try to locate Dr. Hendricks?
- 23 A Yes, again, found out that he was also deceased.
- 24 Q The name John Norman Collins, has also come up. Did you locate  
25 John Norman Collins?

1 A Yes. He is currently a prisoner at the Michigan Department of  
2 Corrections.

3 Q Did you get a buckle swab from John Norman Collins?

4 A Yes.

5 MR. HILLER: Your Honor, I am not going to go through  
6 the rest of the names, we will go through them with Dr. Riley.

7 BY MR. HILLER

8 Q I want to show you Peoples Exhibit 33-E, look at it and tell me  
9 if you recognize it. You don't necessarily need to go through  
10 the contents right now--

11 A Okay. It's a package from the long-term evidence with the UD14  
12 receipt—a copy of the UD 14 receipt on the cover.

13 Q Do you recognize that item?

14 A Yes. It's the one woman's nylon hose with the knot which would  
15 have been the ligature that was applied around Jane Mixers neck.

16 Q Did you remove that from long-term storage?

17 A Yes.

18 Q Do you recall when you removed it?

19 A Um--

20 Q Are you looking at the receipt?

21 A I am looking at the receipt here. I removed it on April 4, 2002.

22 Q What did you do with it?

23 A I transported it to the Lansing MSP(sic.) DNA lab.

24 Q Do you recall if you put it in a locker or left it with someone?

25 A I left it with someone. I turned it over.

1 Q Now, did you also obtain a known buckle swab of DNA sample from  
2 John Ruelas?

3 A Yes, I did.

4 Q Where did you find John Ruelas?

5 A Again, a prisoner in the Michigan Department of Corrections.

6 Q What did you do with the buckle swab--the DNA sample that you  
7 obtained from Mr. Ruelas?

8 A I also transported to the Lansing DNA lab and turned it in  
9 there.

10 Q Were there other DNA samples that were obtained for elimination  
11 purposes?

12 A Yes.

13 Q And what did you do with those?

14 A Transported them, as well, to the DNA lab

15 Q Did there come a time when you had occasion to take a DNA buckle  
16 swab from a person who came known to you as Gary Earl Leiterman?

17 A Yes.

18 Q When and where was that done?

19 A That was done at the Michigan State Police Paw-Paw post on  
20 November 23, 2004.

21 Q Was that done pursuant to a search warrant?

22 A Yes, it was.

23 Q The persons who's DNA you took, do you see him in the courtroom?

24 A Yes.

25 Q Would you point to him please?

1 A He is here.

2 MR. HILLER: Your Honor, may the record reflect, that  
3 as response to the last question, the witness has pointed to the  
4 defendant's position in the courtroom.

5 THE COURT: He did.

6 BY MR HILLER

7 Q And what did you do with that DNA sample?

8 A I turned that over to Detective Sergeant David Eddy at the MSP  
9 post in Paw-Paw.

10 Q And you did that at the Paw-Paw post?

11 A Correct.

12 Q Is that were you obtained this sample from this provider?

13 A Correct, yes.

14 Q Did you also have occasion to take a set of fingerprints from  
15 Mr. Leiterman?

16 A Yes, I did.

17 Q Where was that done?

18 A That was also done at the post in Paw-Paw.

19 Q What did you do with those fingerprints?

20 A I believe I turned them over to Detective Sergeant Powell. They  
21 would have been transported back here to Washtenaw County.

22 Q When you take fingerprints--did you take them on a card, or did  
23 you take them electronically?

24 A On a card.

25 Q With ink?

1 A Yes, with ink.

2 Q When you--when you use a fingerprint card in that way, do you  
3 mark the card in some way to identify you as the person who took  
4 the prints?

5 A I sign it.

6 Q Does the--does the person whose fingerprints are being taken  
7 also sign it?

8 A Correct, yes.

9 Q Do you recall if Mr. Leiterman did that at that time?

10 A Yes.

11 Q And is the date the prints were taken, put on the card?

12 A Yes.

13 MR. HILLER: If I could have a moment, your Honor.

14 THE COURT: Auh-huh.

15 MR. HILLER: Sergeant Schroeder, thank you. I have no  
16 further questions.

17 THE COURT: Cross Examination.

18 Mr. GABRY: Thank you, your Honor.

19 CROSS EXAMINATION

20 BY MR. GABRY

21 Q Sergeant Schroeder, you testified that you--you ha a position  
22 called Trooper Investigator at the Ypsilanti post?

23 A Correct.

24 Q What does that entail?

- 1 A Primarily you are still the same rank, you are still a Trooper,  
2 but instead of putting on your uniform and driving a patrol car  
3 and going out and doing patrol duties, you are tasked to assist  
4 with the detectives at the detective bureau.
- 5 Q You mentioned that you were involved in the investigation being  
6 re--opened in some capacity while you were there in that role?
- 7 A Correct..
- 8 Q What happened?
- 9 A That was assigned to Trooper Ramerits and we shared an office so  
10 I would help her out from time to time and she was investigating  
11 a fingerprint that had gotten on an AFIS hit and has gotten  
12 notification of an AFIS hit and was doing follow up with that  
13 system.
- 14 Q AFIS is the Automatic Fingerprint--
- 15 A Identification System.
- 16 Q --Identification System?
- 17 A Correct.
- 18 Q Where a print is of sufficient quality, it is entered into a  
19 computer system that examines it against known collected prints  
20 from all over the country, correct?
- 21 A That's correct.
- 22 Q And as a result of that process a latent print developed and in  
23 this case--came back to a Michigan native up in the Traverse  
24 City area, is that correct?
- 25 A That's correct.

1 Q And that Michigan native from the Traverse City area was also  
2 associated with a women who lived in the law quad back in 1969,  
3 is that correct?

4 A That's correct.

5 Q Was that individual contacted?

6 A By Trooper Rameras, yes.

7 MR. HILLER: Your Honor, may counsel approach?

8 THE COURT: Yes.

9 (bench conference at 11:25 a.m.)

10 (Court resumes at 11:25 a.m.)

11 THE COURT: Please continue.

12 BY MR. GABRY

13 Q It was a person by the name of Caberly, correct?

14 A Correct.

15 Q Are you aware of whether or not any handwriting of Mr. Caberly  
16 was acquired and submitted for handwriting analysis or document  
17 examination back in 1966-7, around there?

18 A I believe so.

19 Q There was a card file maintained pursuant to this investigation  
20 -in all of these investigations at the Ypsilanti post, is that  
21 correct?

22 A Yes.

23 Q In your early stages of investigating, I believe it was possibly  
24 the first COTIS hit, relative John David Ruelas, you went  
25 through that card file to go through all of the tips to.

1 determine if any Ruelas or Pecheco name ever came up in the  
2 investigation, is that correct?

3 A That's correct, yes.

4 Q And did it?

5 A No, I did not find it.

6 Q Having gone through there and later having Gary Leiterman's name  
7 come up, did you recall whether or not his name ever appeared in  
8 any of the information provided to the investigators over the  
9 years?

10 A No, I did not find it.

11 Q The exhibit that--the 30--it's up there? IN looking at this, was  
12 it your writing here that points some error--

13 A Yes.

14 Q --in tracking this evidence?

15 A Yes.

16 Q And this 33 has been admitted, is that correct?

17 MR. HILLER: That is admitted.

18 MR. GABRY: And this will go to the jury?

19 MR. HILLER: Admitted.

20 BY MR. GABRY

21 Q Can you explain what is written on there?

22 A Yeap. On April fourth, when I was asked to transport the  
23 ligature to the lab, there's a stack of UD 14's which are the  
24 copy receipts here--there are a stack for each case. I picked it  
25 up and started going through looking for nylon stocking ad I

1 accidentally wrote down a different item number instead of the  
2 one--I out down the wrong description. I put down the correct  
3 item--I took the item that they requested, but when I flipped  
4 through the papers to see the description to copy it, I wrote  
5 down the wrong one. So, on January 13<sup>th</sup>, this year, it is my  
6 handwriting denoting that:

7 "The item description above was used in error. This  
8 UD-14 should reflect the following item in description  
9 which was taken to the MSP Lansing DNA lab on April 4,  
10 2002."

11 And the down there I have the property--correct property number,  
12 eighteen, with the description of one woman's nylon hose with  
13 knot with blood stain, reference Michigan Department of Public  
14 Health item number thirteen.

15 Q That's the one that was cut up and if we were looking in there,  
16 there would be four maybe five little pieces of nylon that had  
17 been cut into sections, correct?

18 A Correct.

19 Q There was another nylon that was acquire by the Ypsilanti  
20 Police?

21 A I believe that was Ann Arbor.

22 Q Ann Arbor?

23 A Yes.

24 Q Okay. And was that found to have any connection with the case?

25 A No.

1 Q Was it maintained and kept with the evidence of the case?

2 A I do not know.

3 Q You heard testimony of other evidence that initially was  
4 acquired by the detectives at the scene or the crime lab at the  
5 scene, refer to cigarette butt. Are you aware of where that went  
6 to?

7 A No, I'm not.

8 Q Are you aware of how many phone books were collected in that  
9 case?

10 A I believe two.

11 Q The exhibit that's before you now was submitted to the forensic  
12 lab after Sergeant Powell had removed the exhibit that she was  
13 going to take, is that correct?

14 A That's correct.

15 Q How is that exhibit contained in the long-term storage vault?

16 A This specific item?

17 Q Yes.

18 A Was inside of a separate plastic bag and then that plastic bag  
19 was in a cardboard box with other items that were packaged. The  
20 boxes were taped and then those boxes were placed in a large  
21 heavy plastic bag--plastic bag wrapped over the top and then  
22 tapped again.

23 Q Not want to track through ever piece of plastic bag that we have  
24 seen, but, even when you removed this to take to the lab in  
25 2001, is that correct?

1 A No. April of 2002.

2 Q Two. It was till being stored in a plastic bag?

3 A Yes.

4 Q The other items were being kept from the original crime scene in  
5 plastic, that's the direct container, correct? By that, I mean  
6 the item was put into plastic with the exception of maybe the  
7 big grey coat.

8 A Not every item.

9 Q Was the pantyhose kept in plastic?

10 A That, I don't recall.

11 Q Was the towel kept in plastic?

12 A I believe that one was.

13 Q And then the stocking, you already indicated was kept in  
14 plastic?

15 A The single stocking, yes.

16 Q Do you recall being contacted by Sergeant Powell while she was  
17 investigating the--trying to determine the investigating value  
18 of--lets see--the evidentiary value of a gun associated with a  
19 Robert Pacheco or any other 22-caliber weapon associated with  
20 the subjects in this case? Did she call you up and ask you to  
21 check into that? Let me show you something--

22 A I'm not sure that I understand your question, again.

23 Q Well it probably wasn't very well drafted. Let me just show you  
24 what I am referring to and maybe that will help you refresh--

25 A Okay, thank you.

1 Q The highlighted portion--

2 A Okay, yes.

3 Q Did she ask you about the investigative value of the gun?

4 A I think that is referring to the bullets.

5 Q That's what we have, but her question is if you would check with  
6 Lansing Lab personnel in firearms to determine if there is any  
7 evidentiary value to this gun, meaning Mr. Pacheco's, or any  
8 other 22-caliber weapon associated to the subjects in this case  
9 if it were to be recovered or made available, that was her  
10 request to you, correct?

11 A Yes.

12 Q And you responded to her, do you remember how you responded to  
13 her?

14 A That the bullets were fragmented and they didn't believe that  
15 they were actually be able to make a specific match.

16 Q Did you tell her that you were advised that other than  
17 determining if the weapon had six lans and grooves the bullet  
18 fragments were in no condition to be used for comparison to any  
19 test fired bullets.

20 A Correct.

21 Q You told her that?

22 A Yes.

23 Q Who told you that at the lab?

24 A Reinhardt Pope.

25 Q So in July 6, 2004 Reinhardt Pope told you that other--

1                   MR. HILLER: Your Honor, I am going to object to this  
2 line of questioning at this point. I think he's--it's not proper  
3 impeachment of this witness, it's not proper impeachment of a  
4 witness who has yet to testify.

5                   THE COURT: What's the relevance at this point?

6                   MR. GABRY: I'm trying to determine, your Honor, what  
7 the investigative value of the gun was, whether it's changed or  
8 whether it remains the way it was when Captain Bennett looked at  
9 it.

10                  THE COURT: What does that have to do with this  
11 witness?

12                  MR. GABRY: This witness was one of the links as we get  
13 closer to the subsequent report that I received and I was trying  
14 to lay the foundation--

15                  THE COURT: Did he make the report?

16                  MR. GABRY: Pardon me.

17                  THE COURT: Is this his report?

18                  MR. GABRY: This is Denise Powell's report.

19                  THE COURT: Objection sustained. Let's move on.

20 BY MR. GABRY

21 Q Back in--there was evidence lost back from the 1969 crime scene,  
22 is that a fair statement?

23 A I believe so.

24 Q And we have no moved into 36 years later pursuant to search  
25 warrants, there was a particular notebook seized by the Michigan

1 State Police, and I'm referring to a notebook that I believe was  
2 turned over to a Mr. Tom Riley of the forensic document  
3 examining unit, are you familiar with that notebook?

4 A Yes.

5 Q That notebook was requested by the defense to have their expert  
6 look at it, correct?

7 A Correct.

8 Q Have Michigan State Police been able to provide that phone--that  
9 notebook as of today's date?

10 A No.

11 Q Do you know where it is?

12 A I do not.

13 Q Have you determined from anyone where it is?

14 A No.

15 MR. GABRY: Nothing further, your Honor.

16 RE-DIRECT EXAMINATION

17 BY MR. HILLER

18 Q Sergeant Schroeder can you explain for the jury, please, the  
19 circumstances surrounding the missing notebook?

20 A Yes. Again, I was asked to transport some evidence from one lab  
21 to another and on June 30<sup>th</sup> this year I went out to our lab to  
22 pick up a package of question document materials from Lieutenant  
23 Riley's office. I picked the package up and transported it  
24 directly from our lab to Spekean Forensic Laboratories in  
25 Okemos, Michigan and once I arrived there I met with Mr. Gill--

1 excuse me, Mr. Robert Kullman who was going to do his own  
2 analysis. When I arrived there I took the items out of this  
3 envelope and he began to work his way through his examinations.

4 When he got to the end, he asked me where item 25 was, and I  
5 looked, at that time, on a sheet and realized I did not have an  
6 item 25 with me that I had brought into the building.

7 Subsequently to that, I have been trying to locate that but as  
8 to this date, I have not been successful.

9 Q To what extent have you gone to try to locate this item?

10 A We searched the lab. Actually, Lieutenant Riley and his staff  
11 have searched the—the question document lab at least three time,  
12 themselves, that I know of. I was there Wednesday of last week  
13 and they allowed me to search the lab myself and I then went out  
14 to Spekean laboratories and searched their parking lot there. I  
15 also made contact with local businesses and went door to door  
16 and contacted the people there to see if anyone had found it in  
17 the parking lot or had turned it in, or if anyone had seen  
18 anything of that nature there, again, negative results.

19 Q Did you look in your car?

20 A Yes, I also searched my car several times. I actually took my  
21 car out to the Motor Transport garage and had the seats removed  
22 and again, no result.

23 Q Now, you know if Lieutenant Riley had--

24 MR. GABRY: I am going to object, your Honor. I believe  
25 Lieutenant Riley is supposed to testify.

1 MR. HILLER: He is.

2 THE COURT: Let me hear the question first.

3 BY MR. HILLER

4 Q Do you know if Lieutenant Riley has made images--photographic  
5 images of the notebook in question?

6 A Yes, he did. He made photographic quality scanned images of  
7 every page of the notebook to my understanding.

8 Q After the notebook was found to be missing, did Lieutenant Riley  
9 give you anything to take over to the Spekean lab?

10 A Yes, he did,

11 Q What did he give you?

12 A He copied each photographic quality image of the notebook onto a  
13 DVD which I then transported over to Spekean laboratories and  
14 gave to Mr. Kullman.

15 Q Subsequent to that, did you hear from Mr. Kullman?

16 A I stopped in at Spekean labs again to deliver some notes to  
17 him. When I was there that day he advised me that he--

18 MR. GABRY: Objection, your Honor, as to what Mr.  
19 Kullman advised.

20 MR. HILLER: Not for the truth of the matter, your  
21 Honor, but to explain the Sergeants actions after that.

22 THE COURT: Just tell me--just tell him what you did.

23 THE WITNESS: I--

24 THE COURT: Not, what he said.

25 BY MR. HILLER

1 Q Did you have a conversation--without telling us what Mr. Kullman  
2 did or told you--did you have a conversation with him?

3 A Yes.

4 Q In response to that conversation, what did you do?

5 A I had four regular C.D.'s created with, again, the photo's  
6 copied on them, instead of a single DVD, which it is my  
7 understanding they don't have a DVD drive--a computer with a DVD  
8 drive, so we created them on to regular CD Roms.

9 Q Have you been able to get those over to Kullman's lab?

10 A No, I have not. I went yesterday--excuse me, I went Wednesday to  
11 drop them off and they were closed.

12 Q And you were here at Court yesterday?

13 A Yes.

14

15 MR. HILLER: Nothing further, your Honor.

16 MR. GABRY: I have nothing, your Honor.

17 THE COURT: You may step down, sir, you are excused.

18 THE WITNESS: Thank you.

19 (witness excused at 11:41 a.m.)

20 THE COURT: Call your next witness.

21 MR. HILLER: Wendy Thompson.

22 THE COURT: Ma'am stop there, face the clerk and raise  
23 your right hand.

24 THE COURT CLERK: Do you solemnly swear or affirm to  
25 tell the truth, the whole truth and nothing but the truth?

1 MS. THOMPSON: I do.

2 (witness sworn at 11:42 a.m.)

3 THE COURT CLERK: Have a seat right up there.

4 THE COURT: State and spell your first and last names  
5 please.

6 THE WITNESS: Wendy, W-e-n-d-y Thompson, T-h-o-m-p-s-o-  
7 n.

8 THE COURT: All right, prosecutor.

9 MR. HILLER: Thank you, your Honor.

10 WENDY THOMPSON

11 DIRECT EXAMINATION

12 BY MR. HILLER

13 Q Good morning, ma'am. By whom are you employed?

14 A I'm employed with the Michigan State Police forensic science  
15 division.

16 THE COURT: Talk a little slower and make your voice a  
17 little louder. Where are you employed?

18 THE WITNESS: I am employed with the Michigan State  
19 Police forensic science division.

20 THE COURT: All right.

21 BY MR. HILLER

22 Q What is your job there?

23 A I'm the laboratory evidence technician responsible for the  
24 intake of evidence and making sure it is secured.

1 Q What procedures do you follow when police officers bring  
2 evidence into the lab to be dropped off?

3 A When the police officers bring in evidence I am responsible to  
4 make sure that it is sealed properly and then I am responsible  
5 for taking it to the secured property rooms.

6 Q Ma'am I would like to ask you, first of all, if you were working  
7 on the afternoon of April 4, 2002?

8 A Yes, I was.

9 Q Do you know Sergeant Eric Schroeder?

10 A Yes, I am familiar with him.

11 Q Did he bring in any evidence that day?

12 A I would have to see the paperwork.

13 Q If I could show you People's exhibit 33. Do you recognize that?

14 A Yes, I do.

15 Q What is that?

16 A It's a manila envelope sealed with red evidence tape.

17 Q Did Sergeant Schroeder bring that into the lab on April 4<sup>th</sup>, I  
18 believe it is?

19 A I would like to see the paperwork reflecting that.

20 Q That UD 14?

21 A Yes. Yes, he did.

22 Q Do you find your mark on that envelope?

23 A Yes, I do.

24 Q When Sergeant Schroeder brought that evidence in, did you handle  
25 it?

1 A Yes, I did handle the evidence.

2 Q What did you do with it?

3 A I noticed that it was not sealed and I placed red evidence tape

4 around it to make sure that it was and I initialed it and dated

5 it,

6 Q And then what did you do with it?

7 A I was responsible for making sure that it was taken into the

8 biology refrigerator.

9 Q Did you that yourself or did someone do it?

10 A I'm not sure.

11 Q But you sealed up the evidence inside the document-inside the

12 envelope, tape it and put your initials on it?

13 A Yes, I did.

14 Q Why do you put your initials on something when you seal it up

15 like that?

16 A According to our evidence submission policy, all evidence must

17 be sealed properly and initialed by the person who sealed it.

18 Since I was the one that sealed it, I went ahead and initialed

19 it.

20 Q When you put your initials on it, do you initial on the tape or

21 somewhere on the envelope?

22 A I initialed near or on the tape.

23 Q Thank you ma'am, I have nothing further.

24 THE COURT: Any questions?

25 MR. GABRY: None, your Honor.

1 THE COURT: You may step down and you're excused.

2 THE WITNESS: Thank you.

3 (witness excused at 11:46 a.m.)

4 THE COURT: Your next witness.

5 MR. HILLER: David Eddy.

6 THE COURT: First stop there, face the clerk, raise  
7 your right hand and be sworn.

8 THE CORT CLERK: Do you solemnly sear or affirm to tell  
9 the truth, the whole truth and nothing but the truth?

10 MR. EDDY: Yes, I do.

11 (witness sworn at 11:46 a.m.)

12 THE COURT CLERK: Have a seat right up there, please.

13 THE COURT: State and spell your first and last names.

14 THE WITNESS: David Eddy, D-a-v-i-d Eddy, E-d-d-y.

15 THE COURT: Prosecutor.

16 DAVID EDDY

17 DIRECT EXAMINATION

18 BY MR. HILLER

19 Q By whom are you employed sir?

20 A By the Michigan State Police.

21 Q In what capacity?

22 A I work in the violent crimes unit as a detective sergeant.

23 Q How long have you been a police officer for the state of  
24 Michigan?

25 A A little over twelve years.

1 Q Do you recall if there was time a time when Detective Sergeant  
2 Schroeder gave you a buckle swab kit that had been obtained by  
3 Gary Leiterman--from Gary Leiterman?

4 A Yes, I do.

5 Q When and were was that?

6 A I believe that was November 23<sup>rd</sup>, if I am not mistaken. That was  
7 at the Paw-Paw post following an interview with Mr. Leiterman.

8 Q Did you see Mr. Leiterman there at the post?

9 A Yes, I did.

10 Q And the person that you saw at the post, are they present in the  
11 Court?

12 A Yes, he is.

13 Q Point to him, please.

14 MR. HILLER: Your Honor, may the record reflect the  
15 identification of the defendant?

16 THE COURT: He did.

17 BY MR. HILLER

18 Q What did you do with that buckle swab, that DNA sample?

19 A I took possession of the sample kit--maintained possession of it  
20 until I turned it over to Lansing laboratory on the 24<sup>th</sup>.

21 Q What time did you leave the Paw-Paw post?

22 A I believe it was approximately nine p.m.

23 Q You took it to the lab the next day?

24 A Yes, sir.

25 Q It remained in your possession during that time?

1 A Yes, it did.

2 Q What did you do with it when you got it to the lab?

3 A I turned it over to; I believe her name is Wendy, at the front  
4 counter. I never physically went into the lab proper. I went in  
5 the front door to the receiving desk. I t was about 4:30 in  
6 the afternoon, as I recall, and I--I signed it over at that  
7 time. I was given a receipt for the property and I left it at  
8 the lab.

9 Q Did there also come a time when you were assigned to try and  
10 locate any biological samples that might be available for a man  
11 who is deceased by the name of Robert Pacheco?

12 A Yes, sir.

13 Q Did you have any success trying to find biological samples for  
14 Mr. Pacheco?

15 A Yes, sir, I did.

16 Q Where did you find those samples?

17 A The V.A. Hospital in Battle Creek had samples in their archives-  
18 -in their possession and I was able to obtain samples from the  
19 lab.

20 Q When you obtained those samples, what did you do with them?

21 A I likewise turned those over to the lab in Lansing.

22 Q Same procedure?

23 A Yes, sir.

24 Q Do you remember when that was done?

1 A I would have to look at a report to know the specific dates. I  
2 actually went there twice. There were two different samples. The  
3 first were the--apparently there was a mistake on what was  
4 needed, so I went back a second time and took samples of  
5 paraffin--in paraffin wax and delivered those. There were two  
6 different dates and I don't recall the exact dates, I don't  
7 think. I would have to look at the report to know them

8 Q A mistake wasn't that you had the wrong persons stuff--

9 A No, just--

10 Q --just that you had the wrong material?

11 A Correct. It was in the wrong form. In fact, it was a biological  
12 samples, however, it was in the wrong form for the lab to use it  
13 for testing procedure.

14 Q When you picked up the sample from the V.A. Hospital, did it  
15 remain in your possession until you took it to the lab?

16 A Yes, sir.

17 MR. HILLER: I don't have anything further, your Honor.

18 CROSS EXAMINATION

19 BY MR. GABRY

20 Q Can I just ask--the buckle sample that you took from my client,  
21 was that the lollipop in the mouth?

22 A I didn't specifically see that part because it was contained in  
23 a sealed envelope--

24 Q So you didn't--

1 A I didn't physically see if it was a--knowing what a buckle swab  
2 is--I did not see the swab itself.

3 Q You just got the manila envelope?

4 A I got the packet, yes, sir.

5 MR. GABRY: Nothing further, your Honor.

6 THE COURT: Anything further? You may step down, you  
7 are excused, sir.

8 THE WITNESS: Thank you, sir.

9 (witness excused at 11:51 a.m.)

10 THE COURT: Call your next witness.

11 MR. HILLER: Steven Milligan, your Honor.

12 THE COURT: Sir, stop there face the clerk raise you  
13 right hand and be sworn.

14 THE COURT CLERK: Do you solemnly swear or affirm to  
15 tell the truth, the whole truth and nothing but the truth?

16 MR. MILLIGAN: I Do.

17 (witness sworn at 11:51 a.m.)

18 THE COURT CLERK: Have a seat right up there.

19 MR. HILLER: Your Honor, may counsel approach?

20 THE COURT: Yes. You can come up and have a seat,  
21 that's fine.

22 (bench conference at 11:52 a.m.)

23 (Court resumes at 11:52 a.m.)

24 THE COURT: State and spell both your first and last  
25 names.

1                   THE WITNESS: My name is Stephen Milligan, it is  
2                   spelled S-t-e-p-h-e-n M-i-l-l-i-g-a-n.

3                   THE COURT: Prosecutor.

4                   STEPHAN MILLIGAN

5                   CROSS EXAMINATION

6                   BY MR. HILLER

7                   Q       Sir, by whom are you employed?

8                   A       I am employed with the Michigan State Police, crime laboratory.  
9                   I am currently assigned to the DNA analysis section of the  
10                  biology unit in Lansing.

11                  Q       How long have you been doing that work for the State Police?

12                  A       I became employed with the State Police in 1989. I have been  
13                  with them since then and I also--in the capacity of drug  
14                  analysis as well as DNA analysis as well as biological-forensic  
15                  biology.

16                  Q       Can you tell us please, your educational background starting  
17                  with college?

18                  A       Yes, I have a Bachelor of Science degree from Mylar State  
19                  University with a major in zoology and a minor in chemistry. I  
20                  also received a Ph.D. from Michigan State University with a  
21                  specialty in the area of molecular biology. After receiving my  
22                  Ph.D., I was employed by Michigan State University as a research  
23                  associate where I worked on herpes virus vaccine development. At  
24                  that time, I used protein and DNA analysis techniques in order

1 to analyze several hundreds of samples, after which, I became  
2 employed with the Michigan State Police.

3 Q Since that time, have you receive other training in the field of  
4 DNA identification?

5 A After I was employed with the Michigan State Police, I received  
6 additional training in the area of forensic biology as well as  
7 DNA analysis techniques from the FBI, several state governments  
8 as well as private laboratories.

9 Q Can you estimate for us of approximately how many hours of  
10 continuing education have you had since joining the state  
11 police?

12 A I can't really estimate in terms of hours, but its been  
13 numerous--the continuing education has been--for example the FBI  
14 course that I attended was a month long course down at Quantico  
15 and that was on DNA analysis techniques, from--everything from  
16 basic RLP to PCR to sequencing to gene cloning.

17 Q Have you published any papers or books or chapters in the field  
18 of DNA?

19 A I have two publications. One came from my Ph.D. thesis. It  
20 involved looking at mitochondrial DNA which is another kind of  
21 DNA in the cytoplasm which is maternally inherited so it is  
22 through by way of female. What I did with that was--basically I  
23 was able to use mitochondrial DNA in single cell ameba who--  
24 which--which is a human pathogen which causes primary amebic  
25 megialasephalitis and so I was able to distinguish between

1 pathogenic and nonpathogenic strain. The second one involved  
2 looking at a repeat region in the human population and doing a  
3 survey for use of distinguishing between lines in humans.

4 Q Have you testified as an expert in the field of DNA  
5 identification in the Courts in the State of Michigan?

6 A Yes, I have.

7 Q Approximately on how many occasions?

8 A Exactly 67 times I have testified in the area of DNA analysis.

9 Q Have you testified in--does that include Court's other than in  
10 the state of Michigan?

11 A I have never testified outside of the state.

12 MR. HILLER: Your Honor, this time I would offer Dr.  
13 Milligan as an expert in the field of DNA identification.

14 THE COURT: Any objection?

15 MR. GABRY: Question, your Honor?

16 THE COURT: Briefly and on his qualifications only.

17 VOIR DIRE BY MR. GABRY

18 MR. GABRY: Since your association with the Michigan  
19 State Police, have you testified outside of your employment with  
20 the Michigan State Police?

21 THE WITNESS: No, I have not.

22 MR. GABRY: In addition to the training that you've  
23 discussed, did the Michigan State Police also send you to exert  
24 witness school?

1 THE WITNESS: They did send me to expert witness school  
2 as well as I was an instructor with the witness school, as well.

3 MR. GABRY: I have no objection, your Honor.

4 THE COURT: Ladies and gentleman, I will allow Mr.  
5 Milligan to testify as an expert in the field of DNA.

6 BY MR. HILLER

7 Q Dr. Milligan, I believe that you've testified that you work at  
8 the Lansing laboratory?

9 A Yes, that's correct.

10 Q Were you working at the Lansing laboratory in 2002?

11 A Yes.

12 Q And 2003?

13 A Yes, I was.

14 Q And 2004?

15 A That's correct.

16 Q Have you processed evidence in connection with the death of Jane  
17 Mixer?

18 A Yes, I did.

19 Q Among the evidence you received, did you receive a buckle swab  
20 that was a known--identified as a known sample of a Gary Earl  
21 Leiterman?

22 A Yes, I did.

23 Q When you received that buckle swab what condition was it in?

24 A I received on sealed Michigan State Police DNA buckle swab  
25 envelope that was labeled with the lab number; 728-69, and

1        identified as Leiterman, Gary, containing two swab holders, each  
2        containing one buckle swab identified as coming from Gary  
3        Leiterman.

4        Q      Did you have a known blood sample from Jane Mixer—a known DNA  
5        sample from Jane mixer?

6        A      I--I had a presumed reference sample from Jane Mixer, because a  
7        reference sample was not submitted with the evidence, the  
8        initial submission of evidence.

9        Q      Normally in the case of a homicide--if a homicide were to occur  
10       today and they were to take--need a known reference sample from  
11       the victim, what sort of evidence would you expect to be  
12       submitted?

13       A      Typically with a reference sample, if a homicide had occurred,  
14       it would be blood that was taken at the autopsy. I could  
15       possibly be a buckle swab as well. There might be hair submitted  
16       or other items intimately associated with the individual. If  
17       those items are not available for whatever reason because of the  
18       condition of the body, items that are associated with the body;  
19       stains or blood stains, could possibly be submitted to be used  
20       as presumed reference samples from the victim.

21       Q      A blood sample taken at an autopsy and put into a vial in 1969,  
22       in your opinion would that be a suitable source of a blood  
23       sample in 19--2002 or 2004?

24       A      In terms of current date, a blood sample is taken, it is taken  
25       in what is called a vacuum container tube, it usually contains a

1 preservative of some type, depending on what they're going to  
2 use the blood for. Even in that condition, which is an ideal  
3 condition that sample in liquid form will degrade as the cells  
4 die and as the bacteria that would degrade those cells as well  
5 as DNA over time that condition would not be ideal. Basically,  
6 you would want to make a stain, which is relatively stable  
7 because the things that break down proteins as well as DNA are  
8 high humidity, high temperatures, ultra violet light, things  
9 like that. So, if you can stabilize the cellular material, even  
10 known its been liced (sic.), the DNA will still retain--will be  
11 retained relatively intact. Even in experiments that we did  
12 in terms of validation studies that we did in our own  
13 laboratory, blood samples that were taken in these ideal  
14 conditions in liquid form, would degrade over the period of  
15 several years and we would look at the DNA that was extracted  
16 from those over--over a time period and you would see degrading  
17 occur. Anything that you can do to stabilize that sample against  
18 degradation and breaking down the DNA, you should do. One of the  
19 things should be to create a blood stain or, in the case of--for  
20 example, COTIS uses what they call FTA paper, which stabilizes  
21 it and prevents degradation of the paper and the DNA.

22 Q So the blood sample obtained from Jane Mixer's autopsy would not  
23 be of value as a known blood sample today?

24 A I--I would expect that taken 36 years ago, a liquid sample would  
25 putrefy, the cells would die and basically, the DNA would

1           degrade, so if it was still in it's liquid state that we would  
2           not expect to get usable DNA for our testing.

3       Q     You mentioned that you had a presumed sample of DNA from the  
4           victim, correct?

5       A     That's correct.

6       Q     What did you get the presumed sample from?

7       A     The presumed sample from this case was taken from a-a yellow and  
8           white stripe towel. It was associated with the victim and in  
9           terms of the towel itself, there was a very intense heavy  
10          crusted stain in the center that has soaked through the towel  
11          and was--was--was very--very large and very dried out and usable  
12          for a--a--presumed reference sample for comparison to the  
13          samples that were to be submitted for comparison.

14      Q     Dr. Milligan, I want to show you Peoples purposed exhibit 31,  
15          and take it out please and tell me if that is where you got the  
16          sample from--the presume sample of Jane Mixers blood?

17      A     People's exhibit 31 is a clear plastic bag that has been sealed  
18          multiple times with evidence tape--both red and clear evidence  
19          tape. I can identify this based on the outside packaging. It has  
20          the lab number 728-69, which is an identifier for the case that  
21          is being submitted as well as the record number or item number  
22          specifically which is 4217-01C, as well as my initials  
23          indicating that I had opened this bag and looked at the  
24          contents. Inside the bag is a yellow and white striped towel. I  
25          can identify this based on the label that I had placed on the

1 end of the towel. Again, it has the same identifier lab number  
2 as well as the record number, 4217-

3 THE COURT: Keep it above the level there, there ya go.

4 THE WITNESS: I'm sorry. 47-17.01, it also has my  
5 initials and it is labeled with the identifier "C". In terms of  
6 the blood stain that was used in this particular case, there is  
7 an intense blood stain in the center of the towel and a cutting  
8 was taken from that. The blood stain was soaked through, as you  
9 can tell, so it was very concentrated stain and it was cut up  
10 and placed in a coin envelope which was sealed. In terms of at  
11 the time I examined it, I examined it on March 25 of 2002. I  
12 took the cutting and I also sealed it in a sealed coin envelope  
13 which are clean enveloped with evidence tape. At that time, in  
14 the same day, I placed it in the DNA refrigerator.

15 Q And that's the sample that you used as the presumes sample of  
16 Jane Mixer's blood?

17 A That is correct.

18 Q Dr. Milligan, were you also presented with buckle swabs--buckle  
19 swab samples identified to you as having come from Daniel Mixer  
20 senior, or Dan Mixer senior, Dan Curtis Mixer and Barbara  
21 Nelson?

22 A Yes, I was. On January 31, 2005, there were a number of items  
23 that were submitted to the laboratory. I received these directly  
24 and placed them in the DNA refrigerator. Of the items, one was a  
25 buckle swab, it was a sealed MSP DNA buckle swab envelope

1                   labeled Mixer, Senior, Daniel containing two swab wrappers, each  
2                   containing one buckle swab.

3 Q                 Did you also receive as sample from a Dan Curtis Mixer?

4 A                 Yes, I did. At that same time and the same submission, there was  
5                   one sealed MSP buckle swab envelope labeled Mixer, Dan Curtis  
6                   containing two buckle swabs.

7 Q                 Did you also receive a sample identified as coming from Barbara  
8                   Nelson?

9 A                 Yes, I did. That was with the same submission.

10 Q                Were you able to develop DNA profiles from the towel and the  
11                  three buckle swabs that we just talked about?

12 A                Yes. A DNA profile was developed from the blood stain that was  
13                  taken off the towel as well as DNA profiled were developed from  
14                  the reference samples from the buckle swabs from Daniel Mixer,  
15                  Senior, Dan Mixer as well as Barbara Nelson.

16 Q                The profile that you got from the cutting you took from the  
17                  towel, was that a single source profile?

18 A                Yes.

19 Q                That was the presumed sample of Jane Mixers blood?

20 A                That is correct.

21                   MR. HILLER: Your Honor, at this time I would ask to  
22                  publish the stipulation regarding the testimony of Marcus  
23                  Scarpeta to the jury.

24                   THE COURT: You may do so.

MR. HILLER: The parties hereby stipulate that Dr. Marcus Scarpetta were called here to testify, he would testify that he is an expert in the use of DNA profiles to establish paternity. That he examined the DNA profile obtained by the Michigan State Police laboratory from the bloody towel found by the body of Jane Mixer and from the known samples obtained from Jane Mixer's father, Daniel Mixer, senior; brother, Dan Curtis Mixer; and sister Barbara Nelson. That Dr. Scarpetta has calculated the likelihood that finding the DNA profile from the towel is 339,703 times more likely if the person who bled on the towel was the daughter of Daniel Mixer Senior and the sibling of Dan Curtis Mixer and Barbara Nelson.

THE COURT: And that is the defense stipulation?

MR. GABRY: It is, your Honor.

THE COURT: Again, ladies and gentleman, this is one of those things that I am instructing you that you may consider as evidence in this case.

MR. HILLER: Thank you, your Honor.

BY MR. HILLER

Q Now, did you also receive pantyhose as evidence?

A Yes, I did. In the initial submission that was sent to the laboratory in October 24, 2001, it was, according to my records, placed in locker number four upon submission to the laboratory. At that time, it was removed from locker number four on October 26, 2001 by forensic scientist Heather Clark who had placed it

1       in the property room. It was removed from the property room on  
2       March 21, 2002 by myself and placed in the biology refrigerator  
3       in our unit. It was removed from the biology refrigerator on  
4       March 22, 2002 by myself and inventory. One of the items that  
5       was submitted was one large manila envelope secured with clear  
6       plastic tape containing one pair brown nylon pantyhose.

7   Q    I want to show you Peoples exhibit 32-A, and take a look at it.

8   A    32-A is an envelope that has been sealed multiple times with red  
9       evidence tape. I can identify this manila envelope from the fact  
10      that it has the lab number 728-69 as well as the identifier  
11      4217.01B as well as my initials as well as the chain of custody  
12      that I have signed a copy of.

13   Q    Will you remove the item?

14   A    The contents, one pair of brown pantyhose which I can identify  
15      that I had looked at because it contained the identified  
16      4217.01B2 as well as my initials as well as multiple tags  
17      indicating the areas that I had cut out and sent for DNA  
18      analysis. With this--with this I had looked at multiple areas  
19      and identified biological--possible biological fluid stains that  
20      were then submitted for DNA testing.

21   Q    What stains were you able to find and what did you have to do to  
22      find them?

23   A    In terms of the items--in looking at it, the pantyhose, I used  
24      an alternate light source. Examination with an alternate light  
25      source indicated that the possible presence of body fluid stains

1 and what an alternate light source is is that it is a light  
2 source that has a very intense light of a particular wave  
3 length. That wave length then excites the biological material  
4 that is on a sub-scrape and in exciting it, it will fluoresce  
5 which you can observe the presence of a stain in comparison to  
6 the sub-straight that it is on. In that case, once those areas  
7 that were located with the alternate light source, there were  
8 four areas that had indicated a possible biological fluid stain  
9 on those. One was an upper right--the left upper right leg of  
10 the pantyhose. The front lower right leg of the pantyhose, the  
11 rear middle left leg of the pantyhose as well as the right rear  
12 ankle of the pantyhose. Those areas were tested with -for the  
13 presence of blood or seaman. Chemical tests did not indicate the  
14 possible presence of blood or seaman as being the stains that  
15 were preserved on the pantyhose. In addition, the pantyhose  
16 crotch was also cut and submitted for DNA testing as well.

17 Q The stains that you observed from the techniques that you  
18 described, were those readily visible to the naked eye?

19 A The stains were not. In terms of--in order to locate those  
20 stains, you would need the alternate light source to see if they  
21 were not visible, they were not dark in nature, or anything  
22 clearly visible to the naked eye.

23 Q In your work, are you familiar with the appearance of stains  
24 left by semen and blood?

25 A Yes, I work with those quit often, yes.

1 Q Even before the test that you did to confirm this, did those  
2 stains have the appearance to you of semen or a blood stain?  
3 A No, they did not.  
4 Q Were you able to develop DNA profiles from the cuttings that you  
5 took from the stockings--from the pantyhose rather?  
6 A DNA profiles were obtained from all five of the areas that  
7 cutting were taken from. The four areas on the leg as well as  
8 the area of the pantyhose crotch--front crotch region.  
9 Q Were any of those partial profiles?  
10 A The one that indicated a partial profile was the stain that was  
11 on the right rear ankle of the pantyhose. The--excuse me, the  
12 other stain that indicated a possible partial profile was the  
13 pantyhose front crotch area which gave a mixture of DNA types  
14 that are consistent of coming from at least two DNA donors.  
15 MR. HILLER: Your Honor, this would be a good time to  
16 break.  
17 THE COURT: All right, are you going to set up the  
18 power point, is that what's happening?  
19 MR. HILLER: Yes.  
20 THE COURT: We will break for lunch ladies and  
21 gentleman. This witness is going to be on the stand for some  
22 time and we are going to set up--prosecutor is going to set up a  
23 power points to--for demonstrative evidence. We will be in  
24 recess until 1:30. Remember my instruction about lunch and not  
25 discussing the case. Please go with Ms. Washington.

1 THE LEGAL CLERK: All rise, please.

2 (Court in recess at 12:20 p.m.)

3 (Court reconvenes at 1:36 p.m.)

4 THE LEGAL CLERK: Court is now in session, the  
5 Honorable Donald E. Shelton, presiding.

6 THE COURT: Bring in the jury.

7 THE LEGAL CLERK: All rise for the jury, please.

8 THE COURT: You may be seated. Dr. Milligan you are  
9 still under oath. Please proceed.

10 MR. HILLER: Thank you.

11 STEPHAN MILLIGAN

12 CONTINUED DIRECT EXAMINATION

13 BY MR. HILLER

14 Q Dr. Milligan, I believe when we broke you were explaining that  
15 you took cuttings from the pantyhose?

16 A Yes that is correct.

17 Q And that you had taken those cuttings and attempted to extract  
18 DNA and to obtain a DNA profile from them?

19 A Yes, that's correct.

20 Q You were successful in obtaining a DNA profile from each of the  
21 five cuttings, is that correct?

22 A That is correct.

23 Q Was there material left over after you did that? In other words,  
24 were there—was there some of the sample left over from each of  
25 those cuttings after you had performed your analysis?

- 1 A Let's see. With respect to the cuttings, there were five  
2 cuttings that were taken and respect to the five, two of the  
3 cuttings still remain for DNA testing if they need be. The  
4 others, in respect to extracts are still available for DNA  
5 testing.
- 6 Q Okay. The extract is the solution you prepare using the cuttings  
7 that actually goes into the genetic analyzer?
- 8 A The extracts are the isolation of the DNA from the stain itself,  
9 so what they--what they are, are the--after breaking open a cell  
10 and collecting DNA, they are the purified DNA that was extracted  
11 from that piece of sub straight in terms of the cutting. In  
12 this particular case, the only--the two items were the upper  
13 right leg and the lower right leg, those sub straight cuttings  
14 are present and could be tested and extracted and ingested. The  
15 other ones are the DNA extracts which are the solutions of the  
16 purified DNA of the stain.
- 17 Q Now, when you say that, are you talking about--we were told  
18 yesterday that--that the procedure is to take a cutting and then  
19 to make the extract from a smaller cutting from a piece cut from  
20 the larger cutting that was made, is that what you did in this  
21 case?
- 22 A In this particular case, because of the limited sample that was  
23 present or the indication that it was a limited sample some of  
24 the--some of the cuttings, themselves, had to be consumed for  
25 the testing.

1 Q But in those cases there is extract left?

2 A Yes, there is DNA extract that could be re-typed and compared.

3 Q Were you also able to obtain a DNA profile from the buckle swab

4 of Gary Leiterman?

5 A Yes, a DNA full profile was developed from the buckle swab of

6 Gary Leiterman, yes that's correct.

7 Q Did you make a comparison between the profile of Gary Leiterman

8 and the five profiles that you obtained from the stockings?

9 A Yes, a comparison was done.

10 Q When you make your comparison you're looking for what?

11 A We're looking for DNA types. What we're looking for -we test

12 thirteen different genetic sites along the human DNA chromosome

13 as well as a gender identifier for identifying whether the

14 sample, if it is a single source if it is male or female,

15 whether it is a mixture, what the possible contributors could be

16 in that mixture. With that, in this case, we're looking for

17 types--in that you're getting--in all cases you're getting one

18 half from your father, one half from your mother, so you're

19 expecting to see two types present. If you only see one type,

20 that means your father and your mother gave you the same type--

21 Q Dr. Milligan, you're looking for locations that have the same

22 alleal number, would that be fair?

23 A Locations, yeah. I mean they are actual locations along the

24 chromosome itself, and what you're looking at--the reason we're

25 looking at these various sites--these vary with the population.

of the individual to individual, we're looking for sites that vary in size, so they are not associated with a particular genetic characteristic but they're--they're basically characteristics of the DNA that vary in the population so we can distinguish the individual from individual. Now, if we looked at sites that were the same, that wouldn't tell us anything if we looked at one individual to another individual. These sites are repetitive DNA. What they are, are segments of DNA that are repeated over and over again. Just like box cars on a train--so you have a box car, you could have fifty of them, you could have twenty of them, you could have five of them, and based on the number that you have that will give you the size of the fragment you are getting. Each of those, once you determine the size of the fragment then you can categorize it by a type.

Q Once you look at it and you compare it at first loci and second loci and you find that you have a match--the same numbers at loci number one are you able to calculate a probability that that would occur at random in the population?

A Yes. With population genetic principles as well as statistics you're able to use basic principles of biology as well as statistics in order to calculate the probability of finding the these two factors and these two types together and how you do that is--originally you would have to have a database and the database is consistent with the frequency of these types in the population. So, how do you develop a database? You go and sample

1       the population. It gives you how many times you see this  
2       particular type in the population, divided by the number of  
3       times you are looking at it, that will give you a frequency.  
4       With population genetic principles, depending on whether you are  
5       getting a single type or whether you are getting a two type of a  
6       particular genetic site, you are able to calculate these  
7       frequencies with this population database and the probability of  
8       finding an individual with the two types together and in terms  
9       of when you are looking at thirteen genetic markers, because  
10      they are independent of that, you are able to tell the  
11      probability of finding all these types together in the  
12      population.

13 Q      The database that you use is the FBI database?

14 A      Yes, we do.

15 Q      And that one--that has been statistically validated?

16 A      Yes, it has. It has undergone extensive statistical analysis to  
17      see any variations or deviations from what is expected.

18 Q      Did you make a comparison between the DNA profile from Gary  
19      Leiterman and the DNA profile you obtained from the pantyhose?

20 A      Yes, a comparison was done. If there was an association then a  
21      statistical calculation as to what the probability of finding  
22      that profile in the population was calculated.

23 Q      Now, sample A-4 came from where on the pantyhose?

24 A      Sample A-4 was from the right rear ankle of the pantyhose and it  
25      was a--at where the Achilles heel would be basically.

1 Q I'm going to show you a photograph of the pantyhose, is this a  
2 fair and accurate presentation of the pantyhose?

3 A Yes, it looks like a digital photograph of the pantyhose I did—I  
4 looked at previously.

5 Q There is a laser pointer on the desk in front of you; can you  
6 show the jury where A-4 is on the pantyhose?

7 A A-4 would be right there, so I would say kind of a triangular  
8 section. At looking at the pantyhose with an alternative light  
9 source indicated a fluorescence there, indicating that there  
10 could be a body fluid stain there.

11 Q What was your result of the comparison between A-4 and Gary  
12 Leiterman's DNA?

13 A In looking at it, the DNA types that obtained from the pantyhose  
14 cutting, which was A-4, indicated the presence of a mixture of  
15 at least two DNA donors. The DNA types in comparing them with  
16 Mr. Gary Leiterman, the problem--what we found was, Gary  
17 Leiterman could not be excluded as a possible donor on three out  
18 of the thirteen possible genetic sites that were tested. There  
19 was indication that a male donor was present.

20 Q And--what's the percentage chance of a random match in this  
21 situation?

22 A In this situation, in terms of--since we're looking at mixtures,  
23 we're not looking at a random match, we're looking at what is  
24 the probability in finding somebody who could, possibly, be a  
25 donor to that mixture in the population. With the mixture, we're

1       not able to resolve the individual donors to that mixture and  
2       what we're--what we're looking at is the different types and if  
3       the types are the same as--in this case, Gary Leiterman's at  
4       this genetic loci, then he cannot be excluded as a possible  
5       donor to that. However, we are not able to distinguish and say  
6       here is the profile to this individual and here is the profile  
7       of that individual so, they way we would calculate a population  
8       statistic would be, we would calculate what is the probability  
9       of selecting a non-related individual at random from the  
10      population who could have contributed to the recorded mixture  
11      that we see. So, in this particular case, using the database--  
12      the FBI database, we calculated as the probability of finding an  
13      individual who could have contributed to that mixture as one in  
14      eight individuals in the Caucasian population, one in six  
15      individuals in the African American population and one in six in  
16      the Hispanic population. So it's relatively common--

17 Q       Now, sample A-5, which I believe was taken from the crotch area.

18 A       In terms of--in terms of where that was taken, that was taken  
19      right in this area, that would be the front crotch area. This,  
20      with the alternate light source, did not indicate the presence  
21      of biological or body fluid. It was tested just to see whether  
22      there was possible other cellular deposits from somebody other  
23      than Jane Mixer on that. There was no indication of seminal  
24      fluid present. There was no indication of blood.

25 Q       What were the results of your analysis?

1 A With this, the probability in terms of looking for--first before  
2 we look at it, we look at DNA profile that was generated. In  
3 this case the DNA types were obtained from the sample that  
4 indicated that there was a mixture of at least two DNA donors  
5 and that Gary Leiterman could not be excluded as a possible  
6 donor to that mixture on nine out of thirteen of those genetic  
7 markers. There was an indication that a male was present. In  
8 terms of the calculation of the mixture, the probability of  
9 selecting an un-related individual at random from the population  
10 who could be a contributor from that mixture is one in two  
11 thousand individuals in the Caucasian population, one in ten  
12 thousand four hundred individual in the African American  
13 population and one in six thousand nine hundred in the Hispanic  
14 population.

15 Q Now, the other three remaining location on the pantyhose,  
16 correct me if I'm wrong, is here, here and here?

17 A That is correct.

18 Q Those were designated by you as areas A-1, A-2 and A-3?

19 A That is correct.

20 Q Did you--can you tell us the result of your analysis on these?

21 A Yeah. In terms of the biology screening, the alternate light  
22 source for each of those areas indicated the presence of a  
23 possible biological stain or body fluid stain. In terms of A-1,  
24 is indicated in the upper right leg of the pantyhose, A-2 is the  
25 lower right leg of the pantyhose, which is right here. A-3 is

1           the--this is turned around in terms of the pantyhose so this is  
2           the rear portion of the pantyhose. It's the rear-middle left leg  
3           of the pantyhose, so those three, the DNA typing was performed  
4           on the DNA typing on the--on the sub straight to determine if I  
5           could get DNA and DNA types from that and whether I could obtain  
6           anything foreign to the victims. DNA types were obtained in this  
7           case.

8 Q       What were the results of your comparison?

9 A       In this case, what this represents, this is a table comparing  
10          the profiles. In the first column we have the thirteen genetic  
11          markers that were tested including the gender identifier  
12          present. In the second column or row, we have the sample names  
13          of the samples that were tested and compared. In this particular  
14          case, we have the first--the first column is that of the  
15          presumed blood sample of Jane Mixer. It gave a profile  
16          indicating--as well it has a gender identifier, it has an "X"  
17          chromosome indicating that it's from a female. There is no  
18          indication that it is a mixture. It indicates a single source.  
19          In the second column we have the buckle swab DNA extract from  
20          Gary Leiterman and it give--it give profile--a full profile. In  
21          the next three columns we have the three sub straights that were  
22          cut from the pantyhose. This would be the upper right leg, which  
23          is A-1. The second one is the lower right leg and the third one  
24          is the middle left leg. In this particular case, you're getting

1 full profiles. All three profiles--the DNA profiles, match that  
2 of Gary Leiterman.

3 Q At how many of the tested loci did Gary Leiterman DNA profile  
4 match the profiles of the evidence obtained from the stocking?

5 A I'm sorry, can you repeat that? I'm sorry.

6 Q At how many loci did Gary Leiterman match these three samples?

7 A In terms of--in looking and comparing the DNA types, if we did  
8 an one on one comparison of each case, do we have thirteen  
9 genetic markers matching that--the reference sample of Gary  
10 Leiterman.

11 Q Did you do the statistical calculations of a random match for  
12 this sample--for these samples as well?

13 A Yes. In this--in this particular case, we are looking at a  
14 random match probability, so we're looking at the probability of  
15 selecting a non-related individual random from the population,  
16 matching these three samples and that probability is one in one  
17 hundred and seventy one point one trillion in the Caucasian  
18 population and one in forty point eight trillion in the African  
19 American population and one in nine hundred and eighty point  
20 five trillion in the Hispanic population.

21 Q (INAUDIBLE) can you tell me what that denotes?

22 A When--when--if you look at these charts, when you see an "A" it  
23 indicates additional activity--excuse me--that fails to repeat--  
24 that fails to meet reporting standards--excuse me--what that  
25 mean is that in this particular case, there's also brackets

1 around it indicating that it is a minor contributor to the  
2 sample in this particular case, indicating that you, possibly  
3 could have a secondary source present, so you possibly have a  
4 mixture.

5 Q In the other two samples is there indication that there could  
6 possibly be a mixture?

7 A In the other two samples, there's no indication.

8 Q All right, now, Dr. Milligan did you also receive an item that  
9 is identified to you as a stocking cut into pieces?

10 A Yes, I did.

11 Q I am going to show you People's exhibit 33-E and its contents-

12 A Let me grab my gloves here.

13 Q When you received that was the copy of the UD-14 taped to it?

14 A Yes, it was.

15 Q Do you recognize that?

16 A Let me see what I have. No it was not. Underneath this D-14  
17 there is a label as well as an identifier. The label had the lab  
18 number 728-69 the identifier, which is the record number, 145102  
19 and the identifier is "A" and there are initials outside of this  
20 envelope.

21 Q Did you receive that?

22 A I removed it from a--I removed it from the DNA refrigerator on  
23 April 10, 2002, it was placed in the DNA refrigerator when I  
24 received it. It has multiple evidence tape seals. In other words

1           it was sealed as one medium sealed manila envelope containing  
2           one sealed plastic bag.

3 Q       Is that the plastic bag you found?

4 A       Yes, this is the plastic bag that was inside that envelope. It  
5           has the label with my initials on it as well as the identifier  
6           145102A. Within that--when I obtained it, it did not contain  
7           these coin envelopes. These were provided by myself. When I  
8           obtained it, inside this plastic bag were four nylon cuttings. I  
9           identified as coming from a woman's stocking, as well as this  
10          paper packet--no, excuse me. The paper packet was not--I again,  
11          provided the paper packet. There was loose multiple hairs  
12          present with the cuttings. I identified them as cuttings number  
13          one, number two, number three and number four.

14 Q       Do you recall if there was anything on--attached to those  
15          cuttings?

16 A       Cutting number four has a Michigan Department of Public Health  
17          label on it. Other than that, there were no other labels  
18          attached.

19 Q       Are you able to tell what part of the stocking, cutting number  
20          four came from? The one with the label attached from the  
21          Michigan Department of Public Health.

22 A       This is the leg opening of the stocking and in terms of--at the  
23          time that I received it, it of course, didn't have these  
24          cuttings. These cuttings were taken by myself and then were  
25          placed in coin envelopes and submitted for DNA analysis. This is

1           the reinforced leg opening of the pantyhose or the stocking,  
2           excuse me.

3 Q       Did you find any--you just testified so I guess you did, take  
4           cuttings from areas on the stocking?

5 A       Yes. In terms of looking at this cutting using an alternate  
6           light source, areas were identified that were consistent with  
7           the possible presence of body fluid stains as well as there was  
8           an area where the cutting was actually cut previously for  
9           receiving it and that area contained dark stains that chemical  
10          testing indicated were the presence or possible presence of  
11          blood.

12 Q       Where in particular did you take the cutting from to test for  
13          DNA?

14 A       On this--on this particular cutting there were four areas that  
15          were taken. There were two areas that were taken from the  
16          reinforced leg opening as well as--

17 Q       Why did you--before you move on to the other place, why did you  
18          select those two areas on the leg opening?

19 A       The two areas on the leg opening--one of the areas with the a  
20          ternate light source indicated body fluid stain. The other area  
21          was an off white stain that was visible at the leg opening.

22 Q       Could you tell what the nature of any of those stains were?

23 A       Those Two were not consistent with blood and no other tests were  
24          performed at that time. The other two areas--there was an area  
25          towards the cut end and this area was indicated--it was called

1        "A" and chemical tests indicated possible presence of blood. The  
2        other area was "D" and that area was indicated the possible  
3        presence of body fluids with the alternate light source and  
4        that's why those cuttings were taken.

5 Q       When you say body fluids what are the possibilities? What would  
6        count as a body fluid by your definition?

7 A       In terms of--you're looking at a non-confirmatory indication  
8        that there's something there. It means that it is a possible  
9        presence of body fluid stain, it means that you are getting the  
10       fluorescence indicative of body fluid stain. Possibly-- when I  
11       say that I mean, it could be--it could be sweat, it could be  
12       saliva, it could be any biological material that would fluoresce  
13       under an alternate light source. It could be non-specific, it  
14       could be--it could be non-human because it's not a--it's not a  
15       confirmatory test, it's a screening test.

16 Q       Did you test the cuttings taken from the stocking that you just  
17       showed us?

18 A       Yes, those items were tested. DNA types were developed from each  
19       of those cuttings. Only one of those gave DNA types which were  
20       suitable for comparison. In other words they--they indicated the  
21       DNA types foreign to Jane Mixer's known reference sample for a  
22       comparison with a possible unidentified donor. That would be the  
23       section that--the section that was cut that was identified as--  
24       this was cutting number four and the area that indicated the  
25       presence of an unidentified donor was that of "C", which was,

1 again as I said, on the leg on the reinforced opening that had  
2 fluoresced with the alternate light source, so it would be in  
3 this area up here.

4 Q I believe you indicated that your results showed a mixture?

5 A In this case--it indicated a mixture of at least two--two donors  
6 in this case. With that, in comparison with Gary Leiterman's  
7 reference sample, Gary Leiterman could not be excluded as a  
8 possible donor in two out of the possible thirteen genetic  
9 marker indicating there were types that were consistent with  
10 that of Gary Leiterman. In addition, the profile was a full  
11 profile. The DNA types associated with the major types  
12 associated with this mixture could be resolved because it was a  
13 major minor type of mixture. In this particular case, the major  
14 types associated with a particular donor match that of Jane  
15 Mixer's reference sample.

16 Q You've got a mixture of Jane Mixer and another person, a man?

17 A Yes. In terms of the gender identifier there is a marker that is  
18 on the "Y" chromosome, indicative that there is a male donor as  
19 well.

20 Q You've said this a couple of time that Gary Leiterman could not  
21 be eliminated as a possible donor at a certain number of loci?

22 A Yes, that's correct.

23 Q Are we to draw any conclusions from that? In other words, he is  
24 eliminated from that loci but just not at those?

1 A In terms of--we're dealing with challenged samples, so the fact  
2 that we know there is a mixture present and the absence of the  
3 types do not indicate the presence of an exclusion. We're  
4 dealing with very challenges samples that are thirty-six years  
5 old, so DNA, just by its nature, over the course of time the DNA  
6 will start to degrade. I don't know, in terms of degradation of  
7 DNA occurs from --you have this big long strand of DNA that's  
8 very intact, that's what we call high molecular weight DNA, to  
9 very small fragments. It starts to get nicked; it starts to  
10 break down into smaller and smaller pieces. In doing so, DNA  
11 degradation, you will loose some of the genetic markers to  
12 larger genetic markers or sites that are looking for sections  
13 that contain like the fifty box car repeats; those will start to  
14 drop out. You may not get a full profile from a mixture in this  
15 case. For example, with this you have a major and a very minor  
16 donor. In addition, because you have a major donor and a minor  
17 donor, it's not surprising that on some of the other loci, you  
18 would not see DNA types or the DNA types would be inconclusive  
19 because you're--you're dealing with such a drastic change in  
20 terms of major minor and in terms of this amplification process  
21 yourself, you will get preferential amplification for the major  
22 donor. The fact that you may not see types does not indicate--  
23 you--you first of all know you have a mixture because you don't  
24 see it at every site it doesn't mean that that's been  
25 compromised. It could be a number of factors. It could be

1 degradation, it could be inhibition because of what's present in  
2 terms of the PCR process it's self, it could be the fact that  
3 there are instances where you can have a mixture of a major  
4 minor where you would never see the minor donor, so in terms of-  
5 -it's being masked by the major donor. In this case here we are  
6 seeing at several sites and of the sites that we are seeing  
7 their presence of a mixture, we're seeing them at a small  
8 genetic markers. Okay. So indicating--indicating to me that  
9 degradation has been going on.

10 Q But when you say he can not be eliminated at a--two or three or  
11 four or whatever the number is--the number of loci that does not  
12 mean that he is eliminated at the other loci, it means that he  
13 can not be eliminated as a contributor to the sample?

14 A Right. Of the area's that we're seeing the mixture, it means  
15 that were we know we have--where we can trust that we have a  
16 mixture and the types are most robust for us to detect the  
17 mixture, Gary Leiterman can not be excluded at those sites fro  
18 those genetic markers.

19 Q Okay.

20 A At the other sites where we are either seeing something that's  
21 consistent but it doesn't have all of the types or were we're  
22 only seeing the major donor, we can't make any conclusions in  
23 terms of if Gary Leiterman is included or excluded. It's  
24 inconclusive.

- 1 Q In this case--with this particular piece of evidence, there were  
2 how many loci that he--where genetic material consistent with  
3 (INAUDIABLE)
- 4 A In terms of this there were two.
- 5 Q And I think we need to know the numbers that go with that.
- 6 A Okay, in terms of--knowing that we are dealing with a situation  
7 where we have a mixture that basically we can trust as a mixture  
8 at only two of these genetic markers out of thirteen, the  
9 statistic is going to be fairly common. The probability of  
10 selecting a non related individual who could be a contributor at  
11 these two where you indicate--where it's indicating that we have  
12 a mixture is one in three individuals in the Caucasian  
13 population, one in four individuals in the African American  
14 population and one in two individuals in the Hispanic American  
15 population.
- 16 Q Okay, so that doesn't tell us much.
- 17 A It tells us that it's fairly common to find an individual who  
18 could be a contributor to the two locus mixture.
- 19 Q Now, Dr. Milligan, is there another form of testing that you  
20 thought might be helpful in this situation with this piece of  
21 evidence?
- 22 A In terms of--with--with the circumstances that we are faced  
23 with, the fact that we have a major donor of DNA that is masking  
24 or possibly masking a very minor donor, there is some other--and  
25 then we know that the minor donor in this particular case, there

1       is another technology or DNA typing. There are short tandem  
2                   repeats that are YSTR, and what they are, are the same types of  
3                   STR that we are dealing with here. We are dealing with very  
4                   small segments or regions of DNA that vary in size in the  
5                   population, but these occur on the "Y" chromosome. So, they're  
6                   male linked so they only look at sites on the "Y" chromosome. If  
7                   you have a mixture that is overwhelmingly female in nature, then  
8                   if you use these markers, you are able to pull out the types  
9                   that are present only from the male donor. In this particular  
10                  case--it was suggested that these be sent out--the State Police  
11                  do not perform these types of testing at this time, but this was  
12                  suggested that this would be a way in order to look at more  
13                  genetic information that was present in this sample and possibly  
14                  take the major donor out of the picture.

15 Q       Because the major donor in this case appears to be Jane Mixer?

16 A       It appears to be Jane Mixer, in fact--yeah, at all thirteen out  
17                  of thirteen markers the major donor matches that of Jane Mixer's  
18                  sample.

19 Q       All right. So, what did you do in respect to--first of all, does  
20                  Bode technology in Virginia do this type of testing?

21 A       Yes, one of the--one of the scientific companies called Bode  
22                  Technology Group in Virginia they perform a number of DNA tests.  
23                  One of these is the YSTR test, so it was suggested, in order to  
24                  send this out to Bode Technology--this was the same group that  
25                  had identified the remains of the unknown soldier, so they have-

1            -they do everything from mitochondrial DNA to YSTR's to other  
2            technology's. It's a very, very large group.

3 Q            Did you send any evidence to the Bode Technology Group?

4 A            Yes, I did. In this particular case--let me find that. February  
5            22, 2005, I took the extract from the stocking cutting number  
6            four area "C" is the area that I just described as well as the  
7            accompanied reagent blank that runs along--this is one of those  
8            that run along side the sample to detect the possibility that a  
9            problem with the testing as well as the possibility that there  
10            is contamination in the reagents. Along with the actual--one  
11            third--I believe one third of the remaining cutting that I had  
12            in archive as well as the reference sample from that from Gary  
13            Leiterman. This was in a sealed Michigan State Police DNA buckle  
14            swab envelope identified as Gary Leiterman, the same one that I  
15            had tested out of and that was transferred by the UPS to the  
16            Bode Technology Group on February 24, 2004 for YSTR's.

17 Q            Why did you only send a third of the cutting?

18 A            Again, if you don't need to consume, you will want to preserve  
19            sample--I mean, if you have to--for example, if the sample was  
20            limited you may have to conserve the sample or if you feel that  
21            it is limited based on your screening. On the other hand, if you  
22            can preserve the sample for testing, than any test can be  
23            repeated. So, if there's any type of discrepancy in terms of  
24            someone questioning the results of the DNA test, it can be re-  
25            tested.

1 Q Did you receive anything--I'm not asking you to tell me what  
2 their reports said, but did you receive any physical items back  
3 from Bode at some point?

4 A In terms of--I received one clear plastic bag holding two sealed  
5 manila envelopes from the Bode Technology Group by Federal  
6 Express. I received that May 4, 2005.

7 Q Now, did you take any cuttings from the towel?

8 A In terms of the yellow and white stripped towel?

9 Q Yes.

10 A As I said earlier, I took a cutting from the central portion of  
11 that which was that very heavy stain that was--immunological  
12 tests that indicated that was the presence of human blood, I had  
13 taken that cutting. In addition, I had taken six additional  
14 cuttings from that towel. They were--they were chemical tests  
15 that indicated the possible presence of human blood. The  
16 cuttings were taken, put into envelopes, sealed and --

17 Q Where you able to develop DNA profiles from those additional  
18 cuttings?

19 A Yes, DNA profiles were developed from those. On March 25<sup>th</sup>, I  
20 had looked at the towel, examined it. On the same day I had took  
21 the cuttings as well as--those cuttings were placed in sealed  
22 coin envelopes and on that same date they were placed in the DNA  
23 refrigerator. DNA testing on those cuttings--it was removed from  
24 the DNA refrigerator on March 26<sup>th</sup> and DNA testing--examined on  
25 the 26<sup>th</sup>, extracted where I was breaking open the cells to

1 collect the DNA on the 26<sup>th</sup> and the afternoon. DNA testing was  
2 performed and DNA profiles were developed.

3 Q Did you compare the DNA profiles that you obtained from the file  
4 with the profile of Gary Leiterman?

5 A Yes, I did. In terms of--only three gave DNA types that were  
6 substantial or significant genetic information of the presence  
7 of an unidentified donor. Those three were compared with the DNA  
8 profile of the reference sample of Gary Leiterman. All of the --  
9 all of the red-brown stains that were collected and tested, all  
10 of those that indicated a mixture profile indicated the presence  
11 of an unidentified donor, they were all from a section of the  
12 towel, or one end of the towel. The--the, I think it was the  
13 non-seamed end or side of the towel and they were basically--one  
14 was on one side and the other two were on the other side of the  
15 towel.

16 Q What were your results of the analysis of those?

17 A Auh, okay, In terms of the DNA types, I called them area two,  
18 area five and area six. The DNA types indicate--for area two  
19 indicate the presence of at least two DNA donors. In this case  
20 Gary Leiterman cannot be excluded as a possible donor for this  
21 mixture. At eight out of the thirteen genetic markers, Jane  
22 Mixer cannot be excluded as a possible donor at this mixture at  
23 nine out of thirteen markers; In addition, there is a DNA type  
24 that was present at one of the genetic markers indicating the  
25 presence of an unidentified donor. This single, type that was

1 present is insufficient for conclusive profile association, so  
2 because the type of genetic information that it provides, no  
3 conclusion could be drawn from that piece of information. In  
4 terms of area five of the towel that gave a DNA profile that was  
5 consistent with a mixture of at least two DNA donors. Gary  
6 Leiterman could not be excluded as a possible donor at seven out  
7 of thirteen of the genetic markers. Jane Mixer's reference  
8 sample could not be excluded as a possible donor at five out of  
9 thirteen genetic markers. Again, there was one other type that  
10 was present at one of the genetic markers. In the last sample as  
11 well as this one, it was at D3S1358. It is also consistent of  
12 coming from an unidentified donor but because it was the only  
13 piece of genetic information that was present it was  
14 insufficient for conclusive profile purposes. Area six of the  
15 towel, it gave--the DNA types were consistent of at least two  
16 donors. Gary Leiterman --or Leiterman, could not be excluded as  
17 a possible donor at five out of the thirteen genetic markers.  
18 Jane Mixer, the DNA profile associated with the major donor,  
19 matches that of Jane Mixer. In this case there were no DNA types  
20 associated with an unidentified donor.

21 Q Can you give us the probability number for each those?

22 A Okay. For the towel area two, the probability of selecting an  
23 unidentified individual at random from the population who could  
24 be a contributor of a reported match--in other words the eight  
25 of the thirteen genetic markers; that's one out of one thousand

1           two hundred individuals in the Caucasian population, one in two  
2           thousand two hundred in the African American population and one  
3           in two thousand eight hundred individuals in the Hispanic  
4           population. For the towel stain A-5, the probability of  
5           selecting an individual who could be a contributor of the  
6           reported mixture which is seven out of thirteen is one in three  
7           thousand two hundred individuals in the Caucasian population,  
8           one in one thousand three hundred individuals in the African  
9           American population and one in three thousand individuals in the  
10           Hispanic population. For the towel area six, the probability is  
11           one in thirty individuals in the Caucasian population, one in  
12           eighteen individuals in the African American population and one  
13           in forty-five individuals in the Hispanic populations.

14 Q       Did you also test an article that was identified to you as  
15           blood off the left hand?

16 A       Yes, I did. It was a sample that was submitted at the initial  
17           submission to the lab on this particular case. I received that  
18           out of the biology refrigerator March 22, 2002. It was one  
19           large manila envelope secured with clear plastic tape. Within  
20           that was a small manila envelope with the string tie off, was  
21           labeled as blood off the left hand. It contained one lined, one  
22           packet containing multiple particles. Chemical tests because of  
23           the limited number of particles that were present--chemical  
24           tests indicated the possible presence of blood. Confirmatory  
25           tests were not performed because I did not want to consume

1           much of the sample so I would have sample to do DNA, so the  
2           sample itself was in the white paper packet. The sterile swab  
3           was used to absorb particle out to the swab, with water and the  
4           swab was placed in a sealed coin envelope and was placed in the  
5           DNA refrigerator on the same day.

6 Q         Once you had done the amplification and the quantization and all  
7           the other steps and run through the genetic analyzer, did you  
8           get a profile off of the blood?

9 A         In terms of--a profile was developed off the blood on the left  
10          hand. The DNA profile was consistent with a single source,  
11          however, there was an addition activity indicating that there  
12          possibly could be a mixture. Because it does not meet our  
13          reporting threshold, we could not call it a mixture, but we're  
14          getting additional activity that's not reportable indicating  
15          that there could possibly be a mixture. The DNA profile for the  
16          major donor, which appears to be a single source, matches that  
17          of the reference sample that was submitted in this case from  
18          John David Ruelas for twelve out of the thirteen genetic  
19          markers. One of the markers gave additional activity that didn't  
20          repeat--didn't meet reporting standards, therefore it was  
21          inconclusive for the comparison.

22 Q         Did you compare any other profile with the profile you got off  
23          the blood off the left hand?

24 A         In terms of--the blood off the land hand was compared to that of  
25          Gary Leiterman, and Gary Leiterman is excluded as a possible

1           donor, so in other words-- first of all, the DNA types did not  
2           match so he's excluded as the donor of this DNA that was typed  
3           from the left hand.

4 Q         Did you compare with the presumed sample of Jane Mixer's blood?

5 A         In terms of--I didn't do it in terms of the report. In looking  
6           at it, you could look at they types, and the types are not the  
7           same. When the types are not the same, that's a non-match,  
8           therefore Jane Mixer could be excluded. In terms of, well excuse  
9           me, in terms of--it was inconclusive because you had additional  
10          activity. Excuse me, she could not be excluded. You had  
11          additional activity at one of the genetic markers that was a  
12          minor donor and it was inconclusive because it did not meet  
13          reporting standards, so what that means is that there is not  
14          opinion formed to whether she is included or excluded as a  
15          possible donor of this sample.

16 Q         Is it--are the results that you are seeing in that particular  
17          sample consistent with or inconsistent with this spot of blood  
18          having been scraped off Jane Mixer's hand?

19 A         The DNA types that are present are consistent with a, basically,  
20          a single source biological sample. In this case, identified as  
21          blood.

22 Q         The minor activity that you see, that stuff that doesn't reach  
23          your reporting standards, is that kind of activity consistent  
24          with blood spot being scraped off someone hands and a few skin  
25          cells being scraped with it?

- 1 A We have a situation here that we have additional activity  
2 indicating that you have could--you possibly have a mixture. It-  
3 -if you had a sample that was blood that had been scraped off  
4 another cellular source, it is possible that you could get  
5 cellular material in that sample that would be a minor donor,  
6 Q Did you ever compare the results from the blood spot with a  
7 profile obtained by Julie Tibo(sic.) for Margaret Ruelas?  
8 A In terms of comparison, I had looked at the DNA types that were  
9 developed in the report that Sara Thivault had performed DNA  
10 typing on a case that involved a Margaret Ruelas and a John  
11 Ruelas and the types--they--the two samples are not consistent  
12 with coming from the same source. The DNA profiles that come  
13 from one of the sites indicate the presence of a mixture and  
14 that mixture is not indicated on this sample. This sample is  
15 clearly indicative of a strong single source or a single source  
16 that has a very minor contributor, so the two are not  
17 consistent.  
18 Q If I understand correctly, what Sara Thivault found was either  
19 all Margaret Ruelas or Margaret Ruelas and John Ruelas and what  
20 you found on the spot of blood was John Ruelas?  
21 A It does--in this case a DNA profile or a major donor--if we--if  
22 we were to make that assumption that additional activity is a  
23 minor contributor, DNA types do match that of John Ruelas, but  
24 there are no additional that match that of Margaret Ruelas.

1                   THE COURT: Can you answer the question that he asked  
2                   in those terms? Try it again.

3                   MR. HILLER: I don't know if I can remember it, your  
4                   Honor,

5 BY MR. HILLER

6 Q When--when--what Julie Thivault (sic.) found was a few samples  
7                   that she developed profiles on and those were Margaret--either  
8                   those were entirely single source Margaret Rueals profiles or a  
9                   mixture of Margaret and John Ruelas?

10 A Yes.

11 Q And the spot of blood on the hand is possibly a mixture, but  
12                   overwhelmingly John Ruelas?

13 A That's correct.

14 Q And the possible mixture--in the information that you have that  
15                   you have that would make it a possible mixture is not consistent  
16                   with Margaret Rueals, or--

17 A Margaret Rueals can be excluded from the sample that I have. So,  
18                   if you are comparing it with the one that is a mixture of John  
19                   Ruelas and Margaret Rueals, the two don't match, so therefore,  
20                   they--I mean, in one case you have a mixture and in the other  
21                   you have a single source. Once you have a mixture you couldn't  
22                   derive a single source from that mixture.

23 Q Okay.

1                   THE COURT: I think we need to take a short break here  
2                   for stretching and otherwise. We will be in recess for about  
3                   fifteen minutes. Please go with Ms. Washington.

4                   THE LEGAL CLERK: All rise, please.

5                   (Court in recess at 2:43 p.m.)

6                   (Court reconvenes at 3:08 p.m.)

7                   THE LEGAL CLERK: Court is now back in session.

8                   THE COURT: Bring in the jury, please.

9                   THE LEGAL CLERK: All rise for the jury, please.

10                  THE COURT: Please be seated. You are still under oath,  
11                  sir.

12                  THE WITNESS: Thank you.

13                  THE COURT: Prosecutor.

14                  MR. HILLER: Thank you, your Honor.

15                  CONTINUED DIRECT EXAMINATION

16                  STEPHAN MILLIGAN

17                  BY MR. HILLER

18                  Q         Dr. Milligan, we were talking about the spot of blood and the  
19                  identification of the profile consistent of that of John Ruelas  
20                  from that spot of blood. When you prepared the extract from the  
21                  in the paper packet, were there any--were there any of that  
22                  material left over when you were done?

23                  A         The paper packet--the paper packet--like I said before, when I  
24                  prepared--I prepared a swab from the particles that were in the  
25                  paper packet so I had taken a sterile swab and had wet it with

1           sterile water and brushed it along to collect any of the  
2           particles onto the swab cotton, so, everything that was of  
3           significance amount was collected onto the swab--onto the cotton  
4           swab. The cotton swab was put into the coin envelope and then  
5           was put through the processing. Because of the limited amount of  
6           material that was present, the entire swab was consumed for DNA  
7           analysis. In terms of the only thing that remained after the  
8           initial testing was the DNA extract that had--that was residual  
9           after the initial test.

10 Q          You--you couldn't see any more material in the paper packet that  
11           the dried blood had initially been in?

12 A          That's correct.

13 Q          That paper packet was returned to the Michigan State Police?

14 A          Yes, it was with the rest of the evidence that was submitted.

15 Q          When you did your testing, did you consume all of your extract  
16           in your testing?

17 A          No, I did not.

18 Q          All right. Now, have you, since then, become aware that Sara  
19           Thivault was working on the evidence from the homicide of  
20           Margaret Ruelas that involved John Ruelas that he was convicted  
21           of in Jackson County--that she was working on that evidence in--  
22           at roughly the same time you were working on evidence in this  
23           case?

24 A          I come aware that she was working on that case not on the same  
25           time I was working in the processing lab. We have different

1       rooms and one of them is the processing lab where we do the  
2       biology. At the time that I processed this evidence, there was  
3       not another individual working in that lab--in that room. When I  
4       processed it, there was no other evidence that was laid out and  
5       there were no other individuals working in that room at the time  
6       I processed this evidence.

7 Q       That includes the spot of blood?

8 A       That includes the spot of blood.

9 Q       And the other evidence that were submitted with the spot of  
10      blood?

11 A       That includes the other evidence, that's correct. That was  
12      submitted with the paper packet that had the blood from the left  
13      hand.

14 Q       And that was the towel and the pantyhose?

15 A       That was the towel and the brown nylon pantyhose, yes, that's  
16      correct.

17 Q       When you look at your test result for the spot of blood, was  
18      there anything about those tests results that may you suspect  
19      that contamination had occurred in this case, or might have  
20      occurred in this case?

21 A       In terms of looking at the test result, there was nothing that  
22      indicated the possibility of contamination by way of looking the  
23      controls as well as types that were obtained from this test.  
24       Otherwise they would have been documented in the report because

1           any--any recognizable instance of contamination is documented in  
2           the report.

3       Q     There was--there were no abnormalities with your test results?

4       A     In terms of the indication of the positive and negative controls  
5           as well as the sub-straight controls that were processed along  
6           side the evidence in this particular case, gave no indication  
7           that contamination had occurred from tube to tube, which is one  
8           of the ways--one of the ways that contamination could possibly  
9           happen.

10      Q     The purpose for those controls is to detect contamination, is  
11           that correct?

12      A     Yes, they're an indicator that either there was a processing  
13           error, in other words the sample mix-up or a pipetting error in  
14           terms of transfer or basically an environmental contamination  
15           such as aerosol transfer. When I saw aerosol transfer--the DNA  
16           doesn't fly around the room, the DNA has to--in order for  
17           something to be transferred there has to be a matrix that the  
18           DNA is in, so one of the things that we all know is that this is  
19           a very sensitive test is that aerosol, just like--like mist or  
20           whatever is one way that it could be possibly be transferred  
21           from tube to tube. That's one reason why we have a protocol that  
22           does not--that we basically process one sample at a time. We  
23           don't have two samples open at the same time to prevent this. I  
24           mean, there are--there's a whole series of procedures that were  
25           developed to prevent contamination; Using different rooms fro

1 different processing; using different chambers to protect  
2 samples from environmental--for example somebody walking by and  
3 accidentally sneezing or something like that to get into the  
4 sample. There are numerous--in addition, the facility is a state  
5 of the art facility with air exchangers that --basically the air  
6 is removed from the room and filtered and then put back into the  
7 room. I mean, there are a number of series dedicated  
8 instrumentation that's in place, In terms of procedures, for  
9 example, processing known and reference sample separately so  
10 that there is no risk of contamination of the known in to a  
11 reference--into a evidence sample. There are a number of things-  
12 -sample handling protocol to prevent sample mix-up.

13 Q Did you follow of your--all of the safety protocols, all of the  
14 protocols to protect the integrity of these tests when you were  
15 doing these tests in this case?

16 A Yes, all of the guidelines were followed in this particular  
17 case.

18 Q Nonetheless, was it considered pertinent to send the remaining  
19 extract that you had made from the blood--from the blood off the  
20 left hand to a private lab for confirmatory testing?

21 A Yes. Mean it is recommended if there is an issue that somebody  
22 questions the DNA typing, then it is prudent. That's why you  
23 would try to preserve a fraction of either the cutting or the  
24 extract so that it could be retested if there is a question  
25 about the results. Since there was extract that was remaining

1 and this was a question that came up, it was prudent in order to  
2 send this remaining extract since there was--there were no more  
3 remaining material in order to extract DAN from. The only thing  
4 that remains is the DNA extract that possibly a profile could be  
5 developed to determine whether the profile is in agreement with  
6 what I obtained.

7 Q Did you send the remaining extracts to a private lab?

8 A Yes. The DNA extract off the swab, identified as blood off the  
9 left hand swab, was sent via UPS to Reliagene Technologies on  
10 May 19, 2005.

11 Q Where is Reliagene's Technologies located?

12 A They are located in New Orleans, Louisiana.

13 Q Dr. Milligan, are you aware of whether or not that was done with  
14 Court approval?

15 A Yes, it was requested.

16 Q I want to read to you a list of names, and ask if you received  
17 buckle swabs for elimination testing purposed of these  
18 individuals. Let me known when you are ready.

19 A I am ready.

20 Q Okay; Earl James, Max Little, Eric Schroeder, Terrell Young--do  
21 you know who Terrell Young is, by the way?

22 A Terrell Young is a MSP detective.

23 Q George Hine, Walter Hose, Don Bennett, Fred Pacheco, Robert  
24 Pacheco, Phillip Weizman, Donald Dufratis, Timothy Litterman. Did

you receive samples for comparison for elimination purposes on all of those individuals?

3 A Yes, I did.

4 Q Were they all buckle swabs or were there any samples that were  
5 not buckle swabs?

6 A Let's see. I believe they were all buckle swabs in this  
7 particular case, but I will--

8 Q Are you sure about the sample of Robert Pacheco?

9 A Let's see here--okay. Earl James was a buckle swab. Don Bennett  
10 was a buckle swab. Walker Hose was a buckle swab. George Hine  
11 was a buckle swab. Eric Schroeder was a buckle swab. Terrell  
12 Young was a buckle swab. Max Little was a cotton buckle swab.  
13 Fred Pacheco was a buckle swab. Robert Pacheco was not. Robert  
14 Pacheco was a paraffin blocks--22 paraffin blocks, each holding  
15 brown material and each labeled A1694 identified as fixed tissue  
16 and paraffin in autopsy of Robert Pacheco.

17 Q I believe the rest of them were buckle swabs, Dr. Milligan.

18 A Would you like me to check?

19 MR. GABRY: We'll agree they were, your Honor.

20 THE WITNESS: Okay.

21 BY MR. HILLER

22 Q Did you--were you able to obtain DNA profiles from each of  
23 those?

- 1 A A DNA profile was developed from each of those with an exception  
2 that a full profile was develop from Robert Pacheco and a full  
3 profile was not developed from Timothy Leiterman.
- 4 Q Did you compare the results of you testing--the profiles you  
5 were able to develop from all of these elimination samples to  
6 the evidence in this case?
- 7 A Yes, I did.
- 8 Q Were you able to eliminate all of those people as possible  
9 donors in this case and were there any exceptions?
- 10 A All of the individuals listed were excluded as possible donors  
11 from the samples that were tested, with the exception of Robert  
12 Pacheco could not be excluded from the stocking cutting number  
13 four area--or stain "C" due to the limited genetic information  
14 that was obtained from Robert Pacheco. In addition, Timothy  
15 Leiterman, because it was not full profile, it--he could not be  
16 excluded as the donor from the blood stain identified as A-5 on  
17 the yellow and white striped towel.
- 18 Q You were only able to develop partial profiles from those two  
19 individuals?
- 20 A In--in--in the case of Robert Pacheco, yes, because of the fact  
21 that it was fixed tissue. In terms of Timonth Leiterman, I did  
22 not develop. That was developed by my co-worker Ann Gordon.
- 23 Q Was it a full profile or a partial profile, though?
- 24 A Timothy Leiterman?
- 25 Q Yes.

1 A That was a partial profile.

2 Q Dr. Milligan, I don't have any further questions, thank you very  
3 much.

4 THE COURT: Cross examination.

5 MR. GABRY: Thank you, your Honor.

6 CROSS EXAMINATION

7 BY MR. GABRY

8 Q Dr. Milligan, do you recall, sir, whether you were provided with  
9 an elimination sample on a person by name of Gilbert Pacheco?

10 A I don't have any record of receiving--I received a Fred Pacheco  
11 and a Robert Pacheco but not a Gilbert.

12 Q What about a James Lee Pacheco?

13 A No.

14 Q Or a David Ruelas--David Ruelas?

15 A David Ruelas, no, I never received.

16 Q I'd like to go back to how this begins and one thing that I  
17 didn't hear in your direct examination was, after you receive  
18 the first set of evidentiary samples and that consisted of the  
19 nylons, the paper packet with blood of left hand--

20 A Yes.

21 Q --and then there were some fingernail scrapping, correct?

22 A That's correct.

23 Q And we didn't hear about those because nothing developed from  
24 the scraping taken underneath Jane Mixer's, which ever fingers  
25 they were, correct?

1 A Right. There were fingernail scrapping, two of them and no DNA  
2 types--no reportable DNA types were developed from those.

3 Q Did I note, however, in your report that you did determine the  
4 presence of blood under the nails?

5 A I believe with one of them I was able to detect the possible  
6 presence of blood under the left middle. A chemical test  
7 indicated the presence or the possible presence of blood.

8 Q Now, that was the first group of samples, and that came into the  
9 lab in October or 2001?

10 A This--that's correct.

11 Q And it remained in the property room for almost five months  
12 before it was removed to go to a refrigerator?

13 A That's correct.

14 Q Why was it not initially placed in a refrigerator when it  
15 arrived at the Michigan State Police forensic lab?

16 A Because all evidence that's coming into the laboratory--if  
17 there's not going to be worked on in a timely fashion, or that--  
18 in terms of the amount of evidence is substantial it is placed  
19 in the property room and not in the laboratory where we work,  
20 just based on the volume.

21 Q There came a time after five months that your work load allowed  
22 you to begin to look at this particular case?

23 A Yes, that's correct.

24 Q In preparation in looking at this case, you had it moved from  
25 the property room into the refrigerator?

1 A Yeah, I actually went down and took it out of the biology room  
2 and put it into the refrigerator in March, yes.

3 Q Is the refrigeration at that step somehow significant at that  
4 stage in the process?

5 A No, it's just that, that is where I would store it until I--I  
6 would know that I would get to it in a timely fashion and the  
7 refrigerator sits adjacent to where I sit and analyze it.

8 Q So, you could have just got it out of the property room and  
9 walked into the biology room and started looking at it?

10 A Right.

11 Q In reviewing your report, I understand that as you began to  
12 unwrap these items, or remove the items, you found that the  
13 nylons were placed into a bag and contained in that same bag  
14 with the loose nylons were the white paper packet that said  
15 blood off left hand and then the fingernail scrapings, is that  
16 correct?

17 A Actually they were in separate packages because the fingernail  
18 scrapings were in a container in a large manila envelope that  
19 was sealed with clear plastic tape and the blood of left hand  
20 was in a large manila envelope that was secured with plastic  
21 tape, a second one, which had a small manila envelope which  
22 contained the paper packet with the particles as well as the  
23 pair of brown--the brown nylon pantyhose.

24 Q That's what I thought I said--

25 A Well you--

1 Q You opened an envelope--

2 A Yes.

3 Q --and in that envelope was two--okay, in a small manila envelope  
4 with a white paper packet; Nylons, manila envelope and one white  
5 paper packet?

6 A Correct.

7 Q We've seen the pantyhose on the screen. Did I understand you to  
8 say that this would not have been what we referred to what we  
9 refer to as a biological stain, it would not have been visible  
10 to an individual naked eye?

11 A It's very difficult to detect with the naked eye. After those  
12 areas were detected with the alternate light source, in looking  
13 at the material, you could see that something possibly could be  
14 there. Microscopically looking into the weave of the nylon you  
15 could actually see that something was there actually between the  
16 weave, so if you look under a light microscope and you look at  
17 that, you can see that there is some material present.

18 Q But most people pulling on their pantyhose probably don't have  
19 that available--

20 A Right.

21 Q The naked eye is not going to be able to see that a stain, in  
22 your term, exists, correct?

23 A Right. It probably would not be readily observable.

24 Q You, in fact, had to use this poly light to excite something?

1 A I used it in terms of aiding a location of stains that I  
2 couldn't see with the naked eye.

3 Q You talked about the light that somehow excites the material.

4 A Yes, if there is biological material, some of the stains will  
5 fluoresce in a particular way and you will be able to detect it  
6 in relation and in contrast to whatever material that it's on.

7 Q Could you try to describe to the jury what they would actually  
8 see if we were watching that happen? Would we see little--lit  
9 little star spots? Would we see a glow over the area on these  
10 pantyhose?

11 A Like for example, different stains will react different to the  
12 light.

13 Q Let's talk about this stain.

14 A This stain, all right. Basically, you would see a darkening of  
15 the area indicating that there is something other than the weave  
16 of the material that is there.

17 Q Tat doesn't necessarily denote that that whole darkened area has  
18 human cells in it?

19 A Right, this is a screening tool, it doesn't denote that. In  
20 terms of a chemical tests--two chemical tests were run with the  
21 idea that could it be blood, could it be seminal fluid and both  
22 of those chemical tests did not indicate the presence of either  
23 of those substances.

1 Q Now, when you begin to analyze a case--when you look at a case  
2 like this, are you familiar with any of the lab work that had  
3 gone on before?

4 A At the time that I processed this initial submission, I was not.

5 Q Subsequently you became aware of Mr. Holt's observation of the  
6 pantyhose?

7 A Yes, I believe so.

8 Q As far as no blood, no seminal fluid?

9 A Right.

10 Q The stained area, then, that fluoresces is consistent with what  
11 kind of bodily fluid?

12 A In terms of--a number of things will fluoresce; saliva, sweat,  
13 seminal fluid, urine.

14 Q Do I understand that what you told the jury is that the quantity  
15 was so minimal that you did not perform any additional testing  
16 to try to determine the--

17 A Right, In terms of the confirmatory tests that we run in the lab  
18 and the only two that are confirmatory are the presence of  
19 seminal fluid and the presence of blood. So, there is no reason  
20 to test--indicative test, when basically we have to preserve  
21 what stain we find.

22 Q I understand. And you--again, if the stain were large enough, if  
23 there area were large enough, you would have been able to  
24 preserve for your testing and do additional tests to determine  
25 if it were urine?

1 A But even if I did those tests, it's consistent with the presence  
2 of urine--it's not confirmatory for the presence of urine.

3 Q In other words, we don't know what they stain was?

4 A We don't know what that stain was. That's correct. We do know  
5 that is it biological in nature and we do know that we received  
6 DNA from it.

7 Q It is fair to say that we also don't know when that stain came  
8 in contact with whatever caused that stain, came in contact with  
9 the pantyhose?

10 A Yeah, in terms of the tests that are run, there are no  
11 indicators as to when the stains were deposited or how it was  
12 deposited.

13 Q When you look at--go through this entire process that we've gone  
14 through, but as far as being able to tell the jury if the stain  
15 was created between 6:30 on March 20, 1969 and 7:30 in the  
16 morning on March 21, 1969 science can't help us there, correct?

17 A That's correct.

18 Q It could have been on there two or three days prior to the 20<sup>th</sup>  
19 for all you would be able to tell us, correct?

20 A That is correct.

21 Q Now, the amount of DNA that you were ultimately extract from  
22 these cutting areas on the pantyhose, I didn't hear any  
23 quantification in your direct testimony. I want--in looking at  
24 your data, quantification steps, of course, occurred. Can you

1 tell the jury of the amount of, first of the DNA was--this would  
2 be before the amplification process, correct?

3 A This is before the amplification step, and in terms of the--the  
4 quantity is determined in terms of the amount that's human  
5 specific. In terms of the amount, it's easier, instead of  
6 putting it in scientific terms, to put it in terms that are more  
7 consistent with what we know are equivocal amount of DNA--

8 Q Could you kind of do both real quickly, just so I can take a  
9 note?

10 A Sure. In terms of the three stains, A-1, A-2, A-3; in terms of  
11 the amount that's present, I calculated that there was--these  
12 terms may mean nothing whatsoever, point eight three nanograms  
13 per micro liter of DNA--

14 Q Say that again.

15 A Point eight three.

16 Q Point eight three nanograms, is that right?

17 A Nonograms of DNA per micro liter. What it is, is a unit of  
18 amount--okay, in terms of grams of volume which is in terms of,  
19 in this case, micro liters.

20 Q We actually heard a little bit about this from Ms. Thivault--

21 A Okay.

22 Q --so that's why I just wanted to amount.

23 A In terms of--that equate to--in terms of total yield that was  
24 obtained from A-1 to over five thousand cells. Those would be  
25 cells that are like body cells as oppose to sperm cells because

1       they are--that same equivalent of DNA in terms of volume, if we  
2       equate what we have it would be over ten thousand cells in cell  
3       A-1. That was yielded from the extract in stain A-1.

4 Q       How does that equate to how many cells we would get if we took  
5       a--one of the lollipops that we refer to--the buckle swabs and  
6       we rubbed that inside? How many cells would we end up on a  
7       buckle swab?

8 A       A buckle swab is very concentrated but I don't know how much  
9       yield that one obtains. It's--its well in excess. This amount is  
10       well in excess in terms of amount. Five thousand cells, is well  
11       in excess in terms of the threshold. Once we do the PCR  
12       amplification, the amount of DNA that we are seeing here is well  
13       in excess. It is not a low copy number, okay.

14 Q       Okay.

15 A       So, I guess what I'm saying is that this is not a trace amount  
16       in--in all three of the cases for me to amplify it, to go  
17       through the PCR process, I actually had to dilute it.

18 Q       What was its condition relative to degradation or inhibition?

19 A       In terms of those three stains, A-1, A-2, A-3; what we do--I  
20       suspect that id Sara Thivault talked about the quantitation, she  
21       also talked about yield gels..

22 Q       You are correct in that.

23 A       Because we run yield gels--used to run yield gels and those are  
24       gels where cells are placed in a gel matrix and the--along with  
25       other standards. Electrical current is applied in the DNA moves

1 toward the other side of the gel. In doing so, we are able to  
2 tell whether the DNA is intact or whether it has been degraded  
3 because if it's intact it will not migrate very far, but if it's  
4 been broken down into smaller and smaller pieces it will migrate  
5 farther. In doing so with these A-1, A-2, A-3, there was an  
6 indication that it migrated further than the standards, however,  
7 indicating that there is a presences of degradation where DNA  
8 had been broken down, but this is not surprising because the  
9 nice thing about PCR is that you're looking at smaller and  
10 smaller areas so that does not prevent you from getting a type.  
11 On the other hand--also in running the gel, it is run with a dye  
12 called amphibian bromide. The amphibian bromide is excited by UV  
13 light and basically all three of those stains gave--even though  
14 the DNA indicated that it was degraded, you could actually see  
15 it on the gel. There was a substantial amount on A1, A-2, A-3.  
16 Q How do you differentiate between degradation and inhibition in  
17 the process?  
18 A Okay, inhibition has to do with the PCR process and degradation  
19 has to do with the--the state of the DNA you get from the  
20 extraction. So, if the DNA --as we know the DNA is a long  
21 strained and if its getting nicked and broken into smaller and  
22 smaller piece, maybe some of those nicks are in some of those  
23 sites that we are interested in. Well, if you're looking at very  
24 small site or very small regions, the likelihood that these  
25 nicks or cuts in the DNA would occur in any of those site

1       becomes less and less the small the site that you are looking.

2       On the other hand, as it's degraded, the larger sites--what will  
3       happen is that the nicks will occur and there won't be PCR  
4       amplification of the production of an amplified DNA product or  
5       those fragments that we're looking at. I doing so you will start  
6       to loose the DNA sites off the larger sites or the larges sizes.

7 Q       Which could result in the--is that why we have the elimination  
8       of some alleals or some dropping down reportable levels?

9 A       In terms of--if we have degradation--in terms of it is  
10      indicating the presence degradation, yes, that could be a  
11      possibility of why we don't have types at the larger sites--the  
12      larger size genetic fragment sites as opposed to the smaller  
13      one. That's correct.

14 Q       You mentioned, and you said that's what's nice about PCR. By  
15      nice, we're talking about the highly--first of all, the ability  
16      to take very small amounts and Xerox them to the point were we  
17      can get a profile out of old degraded DNA correct?

18 A       Yes. What's nice is that we ca get genetic information from a  
19      challenged sample like degraded DNA.

20 Q       As a result of what you have learned through the evolution of  
21      this process, have forensic scientists requested or directed law  
22      enforcement to perform evidence collection in a different  
23      fashion?

24 A       In terms of the evolution from the time that protein markers  
25      were run, to DNA, I would--I would--all the precautions that are

1 taken in the laboratory, obviously extend out to the collection  
2 of the evidence to this current day. In terms of going out and  
3 collecting evidence, an individual should have gloves on  
4 because; obviously if they are touching it there is a  
5 possibility that they could contaminate it. On the other hand,  
6 just by them touching it does not mean they will contaminate it  
7 because individual shed cells at a different rate.

8 Q Is it possible in that fashion that an individual could touch a  
9 particular object and act as an intermediary in transferring DNA  
10 cells, or human cells when in contact with one evidentiary  
11 sample, and then having contact with another evidentiary sample  
12 transfer those cells from sample one to sample two?

13 A In terms of studies that I've seen, there have been a couple  
14 studies that have been significant and in terms of the type of  
15 transfer that you are inquiring about is a--is a secondary  
16 transfer from an original source to another original source or  
17 an object to a person to an object. From the studies that I've  
18 seen, I see no indication that DNA can go from an object to an  
19 individual where it is in detectable amounts where we would see  
20 that. On the other hand, I want to qualify this. Don't get me  
21 wrong. Any time two objects come into contact, material is  
22 transferred that is what we call a primary transfer. A secondary  
23 transfer, you have--you could have a number of variations. The  
24 scenario that you just stated is not one that I've seen in  
25 studies.

1 Q You mentioned--explain to me again, what you meant when you  
2 qualified your statement as far as the two objects in contact  
3 with each other? What happens? What potential exists?

4 A Well, I mean, in terms that the principle the Lockhart Exchange  
5 Principle--basically when two objects come into contact,  
6 basically material is transferred to the other object. It may be  
7 an significant portion or it may be an insignificant portion.  
8 But, there is transfer.

9 Q I'm showing you what has been marked as People's exhibit four--  
10 Defendant's exhibit four. I don't know if you have ever seen any  
11 of the crime scene photo's in this case, have you doctor?

12 A I believe that I have seen a couple but not many.

13 Q Obviously that is pantyhose and the jury is aware of what that's  
14 a photograph of, that pantyhose being the piece of evidence that  
15 you analyzed. I note that the towel is primarily on the left  
16 leg--right leg?

17 A Right leg, that is correct.

18 Q Where were the stains found?

19 A The stains on which, the pantyhose or the towel?

20 Q The pantyhose.

21 A In terms of the stains, one was the upper right leg in the  
22 front. The second was the lower right leg in the front. The  
23 other stain, which was A-3, was located on the rear left leg.  
24 So, it would be where the ground is.

25 Q Okay, so, on the other side of the body?

1 A Right.

2 Q Then there was another stain that was found--

3 A It was actually on the right leg, on the rear right ankle.

4 Q Right where the towel is touching?

5 A Actually, it is hidden by the towel; the towel is actually in

6 front of it.

7 Q Thank you,

8 A Thank you.

9 Q I didn't hear Mr. Hiller ask, I assume that you did do some of

10 your population statistics as it would pertain to the blood off

11 the left hand?

12 A Yes.

13 Q Can we hear those too please?

14 A The statistics--in terms of the profile, it was consistent with

15 a single source as I said, There is additional activity that

16 indicates that it possibly could be a mixture. The DNA profile

17 at twelve out of thirteen markers matches that of John Reulas.

18 In terms of the statistics relating that, the probability of

19 selecting an unrelated individual at random from the population,

20 it could match the blood off the left hand is one in three

21 hundred and seven point three trillion in the Caucasian

22 population and one in twenty-eight quadrillion in the African

23 American population and one in thirty-seven point nine trillion

24 in the Hispanic population.

1 Q If I understand your testimony, in your expert opinion, the--  
2 there was no contamination of that sample that we just spoke to,  
3 from any outside source that might have been associated with an  
4 investigation being done with Sara--by Sara Thivault?  
5 A In terms of--all of the details in looking at the case notes and  
6 looking at the reports in what was obtained, there is no  
7 indication that contamination in this sample came from the  
8 sample in Sara Thivault's case.  
9 Q Has--you have been with the Michigan Police lab--you were one of  
10 the individuals that help set it up?  
11 A Yes, I started when DNA was first formed as a unit.  
12 Q Did--what's the error rate for the scientists at the Michigan  
13 State Police lab?  
14 A We do not calculate an error rate---the error rate itself. That  
15 has been suggested, however, the National Academy of Science  
16 does not suggest doing that because it really doesn't have a  
17 significance. There is not way to accurately measure an error  
18 rate.  
19 Q So, errors occur in the lab, correct?  
20 A I believe that following a protocol, we strive not to make  
21 error--  
22 Q I would hope so, but they do happen do they not?  
23 A I'm not aware of errors; in terms of if you follow the protocol,  
24 I am not aware of errors that have occurred.

1 Q In the years that you have performs analysis for the State  
2 Police, you never committed an error that's required a re-doing  
3 of a test or anything of that nature?

4 A I cannot recall of anytime that I have had to do that because of  
5 suspected errors or handling problems.

6 Q I think that Mr. Hiller indicated--he asked you and you  
7 answered, that audits were done--external audits are done of the  
8 lab?

9 A Yes.

10 Q How does the audit perform an examination in whether or not  
11 errors have occurred if there is no error log? In other words,  
12 do they have to look at every case file?

13 A Yes, I believe that in terms--I am not that familiar with the  
14 audit processes, but the audit process itself from what I  
15 understand as a bench worker, basically the individuals look at  
16 a random number of cases that each analyst has performed and  
17 evaluates--looks at all case notes.

18 Q Okay.

19 A But, in terms of how the summarize it or come up with a  
20 conclusion, I am not sure.

21 Q So, it's kind of another avenue of random sampling?

22 A I believe which would be any form where you are going to test  
23 for an error rate.

- 1 Q I want to make sure I understand. You use the same database that  
2 we have heard about earlier which is the FBI and that basically  
3 consists of a maximum of about 200 individuals?
- 4 A Yes, that's correct.
- 5 Q From that and a mathematical formula that's utilized, we've  
6 reached the numbers that we've heard of today?
- 7 A Yes. I mean, in terms of--these are accepted standards and  
8 procedures. Two hundred is appropriate according to the National  
9 Academy of Science. They put out a report on that. In terms of  
10 the database itself it is--it has been reviewed and analyzed  
11 statistically and in terms of the statistical principles, these  
12 weren't just developed for the State Police or for forensics in  
13 general. These are genetic principles that are standards in  
14 Academia as well.
- 15 Q So it's your opinion that blood that was presented to you, that  
16 you tested the DNA of, belongs to John David Ruelas--well,  
17 matches John David Ruelas?
- 18 A Right. I cannot say that it came from him. I can say that it  
19 matches and that here are the probability that you would find  
20 somebody other than John Ruelas that would have that profile.
- 21 Q We're not saying that the DNA on the pantyhose is Gary  
22 Leiterman's DNA, we are saying that it matches Gary Leiterman's  
23 profile?
- 24 A Correct.

1 Q At the probability rate that Mr. Hiller has kept up here on the  
2 board?

3 A That's correct.

4 Q Were you--let me strike that and go back here. Were you aware of  
5 the fact that at the same time Sara Thivault was examining  
6 evidence associated with John David Ruleas--in other words,  
7 articles of clothing at the lab, that you were examining  
8 articles associated with Jane Mixer's homicide, and at the same  
9 time Gary Leiterman's buckle or bookle(sic.) sample was in the  
10 same building? Were you aware of the temporal--we are aware of  
11 all of the protections, we've heard about them. All three of  
12 those samples, or, I guess, all three of those evidentiary  
13 exhibits came together in the lab during this time period of  
14 February through April?

15 A I'm aware of--because of the expected contamination that has  
16 arisen, I'm aware of the fact that Gary Leiterman's sample was  
17 in a particular area that's removed from the casework area. I'm  
18 aware of it was under the same roof but in different area of the  
19 laboratory. I'm also aware of, subsequently as a result of this,  
20 that as I had stated previously, when I had processed the blood  
21 sample that there was no one else in the room--

22 Q I understand.

23 A --and there was no other evidence, I am not aware of the exact  
24 time frame but I am aware that the evidence was, again under the  
25 same roof, but it was not in the same room.

1 Q Was all of that made aware to the prosecutor's office?

2 A Yes, it was.

3 Q And Mr. Hiller asked you about the Court order, who asked to  
4 have this blood packer reanalyzed?

5 A I believe by the order of the Court with the request by the  
6 prosecutor.

7 Q Have you ever seen the packaging since you released it at the  
8 lab, do you ever know what happened to that?

9 A I think it went to the agency after that. I don't know where it  
10 went.

11 Q Thank you, Dr. Milligan, I appreciate it.

12 A Thank you.

13 THE COURT: Anything further?

14 RE-DIRECT EXAMINATION

15 BY MR. HILLER

16 Q Dr. Milligan, Mr. Gabry asked you about the evidence being  
17 stored in the evidence room in the laboratory and then you  
18 moving it into the biology refrigerator, which I understand is  
19 separate from the DNA refrigerator?

20 A That is correct.

21 Q My question to you is, does the--does the blood stain that has  
22 dried on a piece of clothes for instance, does that need to be  
23 refrigerated in order to preserve it as useful for DNA purposes?

24 A In terms of--it doesn't need to be. If we had the storage  
25 facilities to store everything in refrigeration, we would

1 because that's the best way to store everything biological  
2 material. However, there is not a refrigerator or a freezer  
3 large enough to store all the evidence that comes into the  
4 laboratory. With that, priority is given to samples that would  
5 degrade, such as CSC kits, because of the nature--they have  
6 whole blood samples that would degrade, as I stated before.

7 Other samples that come in, in liquid form that haven't been  
8 dried down. Obviously once the stain--once a stain has been  
9 made, it is fairly resistant. The temperature in these storage  
10 areas is not extreme.

11 Q Would it be fair to say then, for purposes of preserving  
12 evidence for DNA testing, evidence that is wet is bad,  
13 everything that stays dry is good?

14 A That's correct, in terms of longevity.

15 Q Do you know if that is the reason why modern procedures now  
16 favor the use--when collecting these samples, now favor the use  
17 of paper bags over plastic bags because plastic bags have a  
18 tendency to trap moisture?

19 A Yes, that's correct, in terms of humidity. That, like I said, is  
20 one of the worst things for a sample, for DNA.

21 Q There is nothing about the plastic itself--the chemical make-up  
22 of the plastic itself that would cause the DNA to degrade?

23 A It's--it's--because obviously it is not in a sterile condition.  
24 I mean, bacteria are everywhere. In terms of it being in a dry  
25 state without the presence of moisture is what preserves it.

1 Q If it is in a dry state and there is not moisture, it doesn't  
2 make a whole lot of difference whether it is in a paper bag, a  
3 plastic bag or--

4 A It is still preferable to put it in a paper bag. Once dried, for  
5 example; blood stains that are collected for reference samples,  
6 many of them are placed in a plastic envelope and once they're  
7 dried and there is no moisture, they're fairly stable.

8 Q You talked to Mr. Gabry, also about the amount of DNA on the  
9 pantyhose and you talked about the stains A-1, A-2, A-3 having  
10 point eight three nanograms per micro liter, was that--is that  
11 the correct number?

12 A That's correct.

13 Q And you equated that to about five thousand cells?

14 A Yeah, if you do the conversion in terms of how many--how much  
15 DNA is in a cell and you do the conversion it--at least for this  
16 amount, the volume that was obtained, it is approximately five  
17 thousand--greater than five thousand actually.

18 Q Is that all three of those together or is that per--

19 A That is just that one particular sample, the A-1.

20 Q A-1, so the number would be the same then for A-2 and A-3?

21 A No, A-2 was actually the--in terms of converting it, the slot--  
22 the quantitation is point four two nanograms per micro liter and  
23 the conversation is greater than two thousand cells.

24 Q What about A-3, then?

1 A A-3--A-3 was point two one nanograms per micro liter and the  
2 conversion is greater than one thousand--greater than one  
3 thousand four hundred cells.

4 Q Let's talk about the smallest of those three for the moment. Is  
5 that a lot of DNA to find?

6 A In term of the threshold being approximately--now, this is the  
7 threshold that we use--the threshold of detection being  
8 approximately forty cells, this is a lot of DNA.

9 Q And that is what you meant by that is not a low copy number?

10 A Yes, in terms of it is well over the threshold.

11 Q I believe you also said that it was not a trace amount?

12 A Yes. In terms of--you could see that there was a stain present  
13 and a stain yielded this significant amount of DNA. It is not  
14 consistent with being a trace amount.

15 Q Do you have any idea about how much contact it would take to  
16 transfer that amount of cells --let's start with the smaller  
17 amount, to an article such as these pantyhose?

18 A In terms of studies have been done where they've done the  
19 transfer--the primary transfer. I would have to convert this  
20 into a total yield in order to compare it. On the order of--  
21 there--just handling a primary transfer to an object, there on  
22 the order of one to six to ten nanograms total yield.

23 Q Can we draw any conclusions on the likelihood of secondary or  
24 tricerary transfer based upon the number of fourteen hundred,  
25 two thousand, five thousand cells, in these three samples?

1 A In terms of what's present here, the most that can be said is  
2 that this is a significant biological contribution. I don't  
3 believe that other than saying it is greater than the threshold  
4 of our level of detect ability that it--it obviously is not  
5 below our level of detect ability.

6 Q Well above it, in fact?

7 A Well above.

8 Q In the case of the small sample, something like seven hundred  
9 time above your level of detection--I'm sorry, seventy time, my  
10 math is bad?

11 A Um, that's correct.

12 Q Thank you, Dr. Milligan, I don't have any further questions.

13 RE-CROSS EXAMINATION

14 BY MR. GABRY

15 Q Can you give us an image of that any cells? Can you give us  
16 something, in our more common place life that we would have idea  
17 or what we are dealing with?

18 A I can't--I can't in terms of equating the number of cells, but I  
19 mean, in terms of the range of our lowest--our lowest threshold--  
20 --being able to detect that there is something there by way of  
21 DNA, is on the order of five cells.

22 Q I understand that. I am trying to get an image in my mind of  
23 five thousand human cells. Is that--we shed cells--

1 A Right, and people shed them differently so it is difficult to  
2 really equate that to a piece of tissue, or something like that  
3 and say this equates to what we would get from this.

4 Q We have cells in our saliva, that's why that's where buckle  
5 swabs are taken?

6 A Right, off of the cheek actually and the saliva itself just  
7 contains the sluffed (sic.) off cells.

8 Q This is going to sound probably really stupid towards the end of  
9 the week, but, a big gob of spit--

10 A Okay.

11 Q What would be looking at, cell wise in that?

12 A I don't--I don't know. I know that they've done analysis in  
13 terms of volume and I don't have those figures readily. I mean  
14 they can be compared. They exist, but I don't have them, in  
15 terms of what they equates to.

16 Q And can't equate that to anything that we could visualize?

17 A I can't.

18 MR. GABRY: Thank you, your Honor.

19 THE COURT: Anything further?

20 MR. HILLER: No re-direct, your Honor.

21 THE COURT: You may step down sir. Thank you, you are  
22 excused.

23 THE WITNESS: Thank you, your Honor.

24 (witness excused at 4:09 p.m.)

25 THE COURT: Call your next witness.

1 MR. HILLER: People call Ann Gordon.

2 THE COURT: Ma'am, if you would stop there, face the  
3 clerk and raise your right hand.

4 THE COURT CLERK: Do you solemnly swear or affirm to  
5 tell the truth, the whole truth and nothing but the truth?

6 MS. GORDON: Yes, I do.

7 (witness sworn at 4:10 p.m.)

8 THE COURT CLERK: Have a seat right up there.

9 THE COURT: State and spell your first and last names.

10 THE WITNESS: My first name is Ann, A-n-n. My last name  
11 is Gordon, G-o-r-d-o-n.

12 THE COURT: Prosecutor.

13 ANN GORDON

14 DIRECT EXAMINATION

15 BY MR. HILLER

16 Q Ms. Gordon, by whom are you employed?

17 A With the Michigan Department of State Police, laboratory biology  
18 unit as a forensic scientist.

19 Q Let's briefly talk about your background--your educational  
20 background and training as a DNA scientist?

21 A I have a bachelors of Science in chemistry and biology from  
22 Western Michigan University. I am nearly completely with a  
23 Masters of Science from Michigan State University in criminal  
24 justice with a specialization in forensic science.

25 Q How long have you been working at the State Police laboratory?

1 A Over six years.

2 Q Do you have any training in DNA identification?

3 A I have training in serology processing as well as DNA analysis.

4 Q During your, I believe six years, with the State Police, have  
5 you worked that whole time in the laboratory working with  
6 biology and DNA?

7 A I have worked in the laboratory as well as at crime scenes.

8 Q That's part of your job in the laboratory is to go out to crime  
9 scenes and help collect evidence?

10 A Yes, it is.

11 Q Are you a civilian employee?

12 A Yes, I am.

13 Q Have you testified as an expert in the field of DNA  
14 identification in State Courts in Michigan before?

15 A Yes, I have.

16 Q On approximately how many occasions?

17 A I've testified in total, approximately forty times; DNA--my  
18 estimate would be approximately twenty times.

19 MR. HILLER: Your Honor, I would offer Ms. Gordon as an  
20 expert in the field of DNA identification.

21 THE COURT: Any objection?

22 MR. GABRY: I have no objection, your Honor.

23 THE COURT: The witness will be allowed to give expert  
24 testimony in the DNA identification filed.

25 MR. HILLER: Thank you.

1 BY MR. HILLER

2 Q Ms. Gordon, very quickly, were you asked to do some additional  
3 testing in this case--some additional samples that were  
4 submitted by Detective Sergeant Schroeder of the Michigan State  
5 Police?

6 A By additional testing-- after Dr. Milligan?

7 Q Yes.

8 A Yes, I was.

9 Q For what purpose was that testing done, why was that done?

10 A There were items that had not been tested at that point as well  
11 as re-testing one item that Dr. Milligan had already tested.

12 Q What item was that?

13 A I received bulk--items that I did test were; jumper, turtleneck  
14 and a towel. The towel was the item that Dr. Milligan had  
15 already tested.

16 Q Where you looking at the same areas that Dr. Milligan had  
17 already tested or where you looking at different areas on the  
18 towel?

19 A I looked at the entire towel and processed as it hadn't been  
20 processed before--as if it had not been processed before. I  
21 slighted new samples and tested those.

22 Q Where were the samples located on the towel--the samples that  
23 you tested?

24 A I tested four different locations on the towel. If I could refer  
25 to my notations I could recall that.

- 1 Q Please.
- 2 A I tested stains which were not blood stains on the towel. One  
3 was a completely unstained area. One was a stain that I  
4 identified using an alternate light source, and another was  
5 adjacent to samples that Dr. Milligan had tested.
- 6 Q Were you able to--of the --did you take samples from the jumper  
7 as well as the turtleneck?
- 8 A Yes, I did.
- 9 Q Were you able to develop DNA profiles from those cuttings?
- 10 A I was able to develop DNA profiles from all of the items tested.
- 11 Q Were there other things submitted to you that you were unable to  
12 develop profiles from?
- 13 A There are samples from some of the items that I was able to find  
14 DNA and then there were samples from items that I was not able  
15 to, on one particular item.
- 16 Q What was that item that you were unable to find the DNA profile  
17 on?
- 18 A Well, I guess what I mean is that I tested the jumper, the  
19 turtleneck and the towel multiple items--multiple areas from  
20 each of those items. Some of the areas I did not get results or  
21 I got limited results and some of those areas I did get results.
- 22 Q Okay. The DNA profiles that you were able to obtain from the  
23 items you tested, did you compare them with the known DNA  
24 profile of Gary Leiterman?
- 25 A Yes, I did.

1 Q What were your results?  
2 Q On one area from the turtleneck, I was not able to exclude the  
3 sample from Mr. Leiterman as a possible donor. One of the  
4 samples from the towel I was not able to excluded Mr. Leiterman  
5 as a donor.

6 THE COURT: What was the first thing, the jumper or the  
7 turtleneck?

8 THE WITNESS: The turtleneck.

9 THE COURT: Okay.

10 BY MR. HILLER

11 Q With respect to the turtleneck, at how many loci did you find an  
12 association with Gary Leiterman's known DNA sample?

13 A The results were a mixture of DNA types and I was unable to  
14 exclude Mr. Leiterman at three loci.

15 Q Do you have probability statistics for a random match of that  
16 item?

17 A I do. May I refer to my notes for that?

18 Q Please.

19 A Would you mind repeating the question, please?

20 Q Did you calculate probability statistics for a random match for  
21 the area from the turtleneck where you were unable to exclude  
22 Gary Leiterman?

23 A Yes, I did. For the Caucasian population, I found those to be  
24 one in five.

25 Q And on the towel?

1 A I was also not able to exclude Mr. Leiterman on three loci and  
2 that statistical calculation for the Caucasian population one in  
3 five point seven.

4 Q Did you compare--did you compare--were there samples where Gary  
5 Leiterman was eliminated?

6 A Yes, there were.

7 Q Tell us about those results.

8 A Each of the other areas that I tested he was excluded from, on  
9 the jumper the turtleneck and the towel.

10 Q Were you able to make any associations with that?

11 A Some of the samples matched the victim, Jane Mixer's reference  
12 sample and I believe I could not exclude Phillip Weitzman as a  
13 donor on one of the items as well.

14 Q What item was that?

15 A That was a sample identified as 848.05A, jumper stomach.

16 Q Thank you ma'am, I don't have any further questions.

17 THE COURT: Cross examination.

18 MR. GABRY: Thank you, your Honor.

19 CROSS EXAMINATION

20 BY MR. GABRY

21 Q You were the lab scientist that did the DNA profile on a Tim  
22 Leiterman?

23 A Yes.

24 Q Why--could you explain why Mr. Leiterman's profile only reported  
25 out on--what--was that five--six loci?

1 A When I performed the extraction of the sample, I--in the  
2 amplification of the sample, I was able to get results for the  
3 Co-filer system but not for the Pro-file Plus system and I  
4 attempted that several times and consumed what I had already  
5 extracted. Based on the information that I had already gained  
6 from that sample, I was able to exclude that individual from the  
7 samples in question. Therefore I didn't precede on to re-extract  
8 the sample, which I would have been able to do. I had plenty of  
9 sample left to do so.

10 Q Okay, so this was just a short cut because what you wanted to  
11 do, you were able to do without going further in the process?

12 A It was not a shortcut, it was based on the amount of time before  
13 the report had to be generated. Based on the information that I  
14 had already gained, I was able to exclude that individual from  
15 the samples I was comparing him to.

16 Q Was there something wrong with the sample provided to you or was  
17 it just you didn't need to take that additional step in the  
18 processes?

19 A To my knowledge there is nothing wrong with the sample provided  
20 to me. Every now and again with amplification, you don't get  
21 results or you don't get result--in this particular case with  
22 this known sample, I was not able to get results fro profiler  
23 plus, and based on the time frame involved with the deadlines  
24 for when the results had to be submitted, I did not proceed

1 further with re-extract the sample. However, I'm confident that  
2 had I re-extracted it, I could have gotten that information.

3 Q I was just curious as to why we don't have a full profile there.  
4 The three items, then, that you examined were a light blue  
5 turtleneck that had a lot of blood stained on it?

6 A Yes.

7 Q A dark--darkish gray jumper?

8 A Yes.

9 Q And then the towel that we have heard about?

10 A The yellow and white striped towel, yes,

11 Q At one of the cuttings on the towel, you found the inability to  
12 excluded Mr. Leiterman?

13 A At one of the samples, I was not able to exclude him as a  
14 possible donor at three of the loci.

15 Q Which means one out of five--in the statistic, that mean one out  
16 of five people would not have been excluded?

17 A Correct.

18 Q One of our five men?

19 A One out of five individuals.

20 Q Because you didn't--did the data that you were able to withdraw  
21 have the gender gene associated so that you could tell if the  
22 person who provided that sample was male or female?

23 A There were--there was presence of the "X" and the "Y" chromosome  
24 for the sample and it was a mixture. My statement is basically

1 stating only that I can not exclude individuals from that  
2 sample. I am not matching individuals to that sample.

3 Q You have your report in front of you, is that correct?

4 A I do.

5 Q Would you look at the DNA profile associated with the jumper  
6 neck sample 84805A1, which you matched to the Jane Mixer  
7 reference sample, and then drawing your attention to loci D-  
8 18S58 or locus D-18S51.

9 A Yes.

10 Q You note the presence of an additional DNA type at that locus?

11 A That's correct.

12 Q What was that type?

13 A A fifteen.

14 Q Fifteen?

15 A Yes.

16 Q You were able to exclude Gary Leiterman from being the  
17 contributor from a mixture, 84805a3, jumper stomach? I don't  
18 know, if your report is numbered like ours it would be five, and  
19 your conclusions?

20 A I believe that is correct, I would like to verify it,

21 Q Sure.

22 A I believe your question was could I exclude Mr. Leiterman from  
23 that sample?

24 Q Yes.

25 A Yes, I could.

1 Q In addition to excluding Mr. Leiterman from that sample, you  
2 were also able to exclude a number of additional profiles that  
3 hadn't been developed by you but you were made aware of. Is that  
4 a fair statement?

5 A Yes. One of them I had developed, I thought--one of them I had  
6 developed.

7 Q That would be Mr. Weitzman?

8 A I developed Mr. Leiterman.

9 Q Okay.

10 A And the rest of the individuals, you are correct, they were  
11 provided to me.

12 Q John Ruleas, James Holt, Max Little, some people that we haven't  
13 even heard of yet, Donald Defrattis, Eric Schroeder, all of  
14 these identified samples you eliminated, but Mr. Weitzman's  
15 sample you couldn't from this location. Is that accurate?

16 A From three of the loci, that is correct.

17 Q Same statistical number roughly, one in five, one in six?

18 A The statistical estimate from 848.0583 with respect to Phillip  
19 Weitzman in the Caucasian population was one in twelve point  
20 nine.

21 Q Can you tell the jury about what you learned when you examined  
22 an area, cutting removed from the jumper left thigh, sample  
23 84805a4?

24 A My conclusion states that I could not exclude Jane Mixer's  
25 reference sample 1279.05H, that it was a mixture of at least two

1 contributor and that a large number of individuals were  
2 excluded. If you would like me to read that entire exclusion, I  
3 would be happy to.

4 Q Were you able to include anyone out of any of the information  
5 you had been provide with in this case?

6 A Only Jane Mixer, herself.

7 Q So, we don't know where that--who that contributor is?

8 A That's correct.

9 Q Some of the towel areas that you examined, in fact, there was no  
10 detected activity, towel swab of stains 90305A2?

11 A That's correct.

12 Q Number seven--number seven refers to the towel cutting of  
13 stains, is that correct, 9030582?

14 A Are you referring to page six--

15 Q Actually I am on page three of your lab report and just looking  
16 at the profile right now, the towel cutting of stain.

17 A Are you referring to 903.05A2?

18 Q 903.05A2, right. Okay, so we are in the same place. Gary  
19 Leiterman's DNA profile is at that locus, is what?

20 A I'm sorry what locus are you referring to?

21 Q It's D-3, thank you, it's D-3. At D-3, what is Gary Leiterman's?

22 A Mr. Leiterman or Leiterman, excuse me, DNA types at D-3 are 16,  
23 17.

24 Q What is Jane Mixer's reference sample?

25 A Jane Mixer's reference sample is a 15 at D-3.

1 Q What alleals did you find at locus D-3?

2 A I found a 14, 15, 16 and 17.

3 Q Do you have any explanation for the presence of the 14?

4 A An additional donor.

5 Q When we deal with mixtures, we can't assume, am I correct, that

6 we can't always assume that it is always two people?

7 A That is correct.

8 Q It gets complex as a result that some people may have an alleal

9 on one gene, some may have two alleals at a spot, there is

10 obviously overlap by people?

11 A The only statement that I'm making in reference to these

12 mixtures is that these individuals types cannot be excluded at

13 these loci.

14 Q And your not saying how many individuals combine to make a

15 mixture?

16 A I would only ever make a statement that would say at least a

17 certain number of individuals could be present here that would

18 be as far as I would go with that.

19 Q And you said at least two today?

20 A With this particular sample, a mixture of at least two donors.

21 Q Okay.

22 THE COURT: Anything further?

23 RE-DIRECT EXAMINATION

24 BY MR. HILLER

1 Q Very briefly Ms. Gordon, when you explain--if mentioned the Co-  
2 filer and Pro-filer systems, can you briefly explain what those  
3 are?

4 A They're amplification kits that we use in the laboratory in DNA  
5 analysis to make copies of the DNA that is present in the  
6 sample. The profiler kit amplifies set of loci, including D-3,  
7 D,W,F,G,A, amulagian D8, D20, D5, D13, and D7. Co-filer  
8 amplifies loci which are identified as Dpox, CSF1PO, D16, D7, D3  
9 and amulagian, so there is some overlap between Co-filer and  
10 Pro-filer Plus.

11 Q Does that overlap provide some measure of control when both of  
12 these are run?

13 A Yes, it does.

14 Q How so?

15 A The results are complied into a profile and the results from D-3  
16 and D-7 and amulagian are compared and consistencies are looked  
17 for.

18 Q So, if you get different results at those loci, you think maybe  
19 there's something--maybe that isn't right?

20 A Yes, in a matter of speaking.

21 Q Thank you, I don't have any further questions.

22 MR. GABRY: Nothing, your Honor.

23 THE COURT: You may step down ma'am.

24 THE WITNESS: May I be excused, your Honor?

25 THE COURT: Yes, you are.

1 THE WITNESS: Thank you.

2 (witness excused at 4:33 p.m.)

3 MR. HILLER: People call Jeffery Nye.

4 THE COURT: We are going to wait. You had enough for  
5 one week. I assume that Mr. Nye will be on the stand for some  
6 time, so we will wait to start with him. No? We will wait.

7 MR. HILLER: I wouldn't want to guarantee that he would  
8 be done in a half and hour.

9 THE COURT: We will wait. It has been a long week. We  
10 have heard almost thirty witnesses already, there are more to  
11 come. I have--the bad news is that there is more to come. I have  
12 two parts of good news. One is that we appear to be on schedule  
13 and the other is that you are going to take Monday off. We will  
14 not be having Court on Monday. We will resume the trial on  
15 Tuesday morning at 8:00. You are free to do whatever you would  
16 like on Monday. I have some advise for you--some instructions  
17 for you about the weekend. We are well into this case and the  
18 last thing I want to have to do it have to start this case over  
19 again, so it is very important that you remember what we talked  
20 about. The alternate to sequestration and your promises to  
21 everyone here that you would not make any investigations, that  
22 you would not talk to anyone about the case, that you wouldn't  
23 have any contact with any of the participants. Please adhere to  
24 that strictly during these next three days. Remember what I said  
25 about the media as well. If you have any contact with the media

1 repot it immediately to me on Tuesday morning. My advise in  
2 order to do that is that you spend the weekend thinking about  
3 anything else that you like. Don't begin your deliberations; you  
4 still have not heard a lot of the evidence, in this case. Set it  
5 aside. Think about how much it is going to rain this weekend and  
6 all the gardening you won't have to do or whatever you care to  
7 do, fish or whatever you like to do. Let's set this case aside  
8 in your mind for now and you will have an opportunity to refocus  
9 on it Tuesday morning. Do you have any questions about my  
10 instructions? You are excused until eight a.m. Tuesday morning.  
11 Please go with Ms. Washington.

12 THE LEGAL CLERK: All rise please.

13 (Court in recess at 4:36 p.m.)

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1 STATE OF MICHIGAN )  
2 COUNTY OF WASHTENAW )

3

4

5 I certify that this transcript, consisting of 186 pages, is a  
6 complete, true, and correct transcript to the best of my ability, of  
7 the proceedings held in this case on Friday, July 15, 2005 before the  
8 Honorable Donald E. Shelton, Circuit Court Judge.

9

10 DATED: March 1, 2006

11

12

13 Amy White (CER 7307)

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