

1 Call your next witness.

2 MS. HARVEY: State calls Nikia Redmond.

3 THE BAILIFF: The witness has not been
4 sworn.

5 (Witness sworn)

6 THE COURT: You may proceed.

7 MS. HARVEY: Thank you, Your Honor.

8 **NIKIA REDMOND,**

9 having been first duly sworn, testified as follows:

10 **DIRECT EXAMINATION**

11 **BY MS. HARVEY:**

12 Q. Would you tell the jury what your name is?

13 A. My name is Nikia Redmond.

14 Q. And where are you employed?

15 A. I am employed at the Harris County Institute
16 for Forensic Sciences, formally known as the Harris
17 County Medical Examiner's Office.

18 Q. How long have you worked there?

19 A. Going on nine years.

20 Q. Is that laboratory accredited for DNA testing?

21 A. Yes, we are accredited. We're accredited by
22 Texas DPS as well as the American Society of Crime
23 Laboratory Directors, Laboratory Accreditation Board.
24 We've held both of those accreditations since 1999.

25 Q. What are your specific job duties?

1 A. I am a DNA analyst. I am also the CODIS
2 administer, as well as I am an analyst with our trace
3 evidence collection team.

4 Q. You mentioned CODIS. Can you tell the jury
5 what that is?

6 A. CODIS is the FBI's national database that
7 houses DNA profiles of evidence from crime scenes as
8 well as known suspects, arrestees, convicted offenders.
9 It's also used to store profiles of unidentified remains
10 and missing persons. And it's used to search to make
11 connections between relatives and missing persons as
12 well as connect crimes to crimes and potential suspects
13 to crimes.

14 Q. What is your educational background?

15 A. I have a bachelor's in biology that I received
16 from Xavier University of Louisiana. I received that
17 degree in 1997. And I graduated from Marshall
18 University of West Virginia in 2000 with my master's in
19 forensic science.

20 Q. What training have you had specifically in
21 learning how to analyze DNA?

22 A. Well, in addition to my studies, I did several
23 projects and internships with professors during my
24 undergrad degree in DNA. As well as upon my graduate
25 studies, I worked for the West Virginia CODIS State

1 Police Laboratory. In addition, my first job was
2 granted prior to -- just prior to completing my degree
3 where I began training and working in a private DNA
4 laboratory in Louisiana.

5 Q. Do you read scientific literature that's
6 related to your job?

7 A. Yes, I do.

8 Q. Have you testified in court before as a DNA
9 expert?

10 A. Yes, I have.

11 Q. On few or many occasions?

12 A. Many.

13 Q. So, let's talk about it. What is DNA?

14 A. Well, DNA is what makes us the unique
15 individuals we are. We get half of our DNA from our
16 biological mother and half from our biological father.
17 DNA looks like a spiral staircase that's tightly wound.
18 And it's called a chromosome. That's mother nature's
19 way of fitting such a long piece of DNA into tiny cells.
20 The majority of our DNA is the same between individuals.
21 That's why we all have one nose, one mouth, two eyes.
22 But when we look at DNA typing, we concentrate on that
23 approximately 1 percent of DNA that differs between
24 individuals, making us unique persons. We concentrate
25 on very small segments that we term genetic markers that

1 have been well characterized by the scientific
2 community. These genetic markers appear in pairs, one
3 from your biological mom, one from your biological
4 father. For our purpose today, we'll be talking about
5 alleles, which are small parts of these genetic markers,
6 which, of course, occur in pairs, one from mom, one from
7 dad, and they are designated by numerical value for
8 identification purposes.

9 Q. Is your DNA the same in all the different cells
10 of your body?

11 A. Yes, it is.

12 Q. Do any two people have the same DNA?

13 A. Yes, they do. Identical twins carry the same
14 identical DNA profile.

15 Q. So, with the exception of identical twins, do
16 any two people carry the same DNA?

17 A. No, they do not.

18 Q. Is DNA used only for solving crimes?

19 A. No, it is not.

20 Q. What other uses are there for DNA and its
21 analysis?

22 A. It's used for such things as paternity testing,
23 telling or relating or connecting relatives. It's also
24 used for diagnostic testing to diagnose and treat
25 different diseases.

1 Q. Now, are there things that you do in your
2 laboratory to ensure the integrity of each test?

3 A. Yes, we do. We employ several different
4 methods and steps that will, on the back end of our
5 process, ensure that the results that we are obtaining
6 from any given case are reliable and true. We employ
7 such things as positive controls where we will know the
8 outcome of that particular control. And if that control
9 comes to be what we expect at the end of the process,
10 then we know that all of our reagents and all of our
11 processes have worked correctly.

12 We also incorporate several, what we term,
13 negative controls or reagent buffers. These we expect
14 to come out perfectly clean, nothing detected. And that
15 lets us know that everything that we have used in our
16 process has not been contaminated with any type of
17 extraneous DNA.

18 Q. Do you take measures to clean all of your area
19 and instrumentation in between testing?

20 A. Yes, we do. We carry out very extensive
21 cleaning procedures, not only on a daily basis, in
22 between samples and cases, but also on a weekly basis --
23 on a weekly basis, monthly basis, our entire laboratory
24 is literally doused with bleach and ethenol.

25 Q. Did you conduct DNA testing in this case where

1 Ms. Dinanno is the defendant?

2 A. Yes, I did.

3 Q. And did you conduct testing on one or many
4 samples?

5 A. Many samples.

6 Q. If we go through some of those samples and the
7 testing that was done, can we talk about the swabs that
8 were taken from the doorknob of the residence, which I
9 believe are your samples six and seven.

10 A. Yes, they are.

11 Q. Were you able to conduct testing on the swabs
12 that were taken from the door of the master bedroom to
13 the residence?

14 A. Yes. We did conduct -- for Item No. 6, which
15 is the exterior doorknob swab, we performed presumptive
16 testing for the presence of possible blood, which came
17 out negative on that particular item. No stains that
18 appear to be blood appeared on No. 7, which is the
19 interior doorknob swab. Therefore, no presumptive
20 serology testing was done for the identification of any
21 type of bodily fluids.

22 Q. So, no DNA on 6 or 7?

23 A. We proceeded with the extraction method on Item
24 6 and found that there was not enough human DNA present
25 in order for a profile to be developed for that

1 particular item.

2 Item No. 7 went through our process of DNA
3 analysis and the results obtained were that no DNA was
4 obtained -- obtainable from that particular sample, no
5 DNA present.

6 Q. Let's move on and talk about the victim's
7 fingernails. Did you receive a number of -- of items
8 with relation to the victim's fingernails?

9 A. Yes, we did.

10 Q. And what was it that you received?

11 A. We received Item 2, right fingernail swabs;
12 Item 3, left fingernail swabs; Item 4, right fingernail
13 clipping; and Item 5, left clipping.

14 Q. And I think the items that you are referring
15 to -- I just want to make sure we're talking about the
16 right fingernails. Are those -- are we talking about
17 Mr. Breaux's fingernails or Ms. Dinanno's fingernails?

18 A. The ones that I just mentioned were from
19 Ms. Dinanno.

20 Q. Okay. So, the defendant in this case. And
21 we'll talk about hers as -- because we're there. What
22 results, if any, did you get from the testing of
23 Ms. Dinanno fingernails?

24 A. For -- we tested the Items No. 2 and 3, which
25 are the swabs from both the right and left fingernails.

1 We did not proceed with the clippings, Items 4 and 5,
2 because the swabs were duplicates of that and we did not
3 want to use more sample than needed.

4 For Item 2 and 3, the swabs of the
5 fingernails, they were received in a sexual assault kit.
6 Therefore, we tested for the presence of semen, of which
7 both were negative. In addition, the presumptive test
8 for blood on Item No. 2, one of the right fingernail
9 swabs, that was also negative for the presence of blood.
10 In proceeding with the DNA analysis to detect what DNA
11 profile may be present on those items, both of those
12 items did not contain enough DNA in order to proceed
13 with developing a profile.

14 Q. So, was there any detectable DNA from someone
15 other than Ms. Dinanno on her fingernails?

16 A. No.

17 Q. Okay. So, now if we go over to our victim in
18 this case, Henry Breaux -- and I believe it's in your
19 supplemental report -- did you receive items from the
20 medical examiner's office with respect to Henry Joseph
21 Breaux's fingernails?

22 A. Yes. We received Items 54, 55, and 56, which
23 are the right-hand clippings and scrapings; left hand
24 clippings and scrapings; and the clippers that were used
25 for the decedent, Henry Joe Breaux -- I'm sorry --

1 Joseph Breaux. And those items were tested for the
2 presence -- presumptive presence of blood. And all
3 three were positive. In addition -- excuse me.

4 Actually, yes. I'm sorry. All three were positive.

5 And then in addition to that, we proceeded
6 with DNA analysis on all three items. And the results
7 returned that for each, the DNA results obtained were
8 consistent with the DNA profile of Mr. Henry Joe
9 Breaux -- Joseph Breaux.

10 Q. Now, when you do DNA analysis and you say that
11 it's consistent with, do you also do some sort of
12 statistical analysis?

13 A. Yes, we do.

14 Q. And what is that statistical analysis?

15 A. The combination of the STR alleles on Item 56,
16 which were the clippers, the expected outcome is to find
17 that profile once in every -- 1 in 40 quadrillion
18 Caucasians, 1 in 124 quintillion African-Americans, and
19 1 in 102 quadrillion Hispanics.

20 Q. And when we're talking about numbers like a
21 quadrillion, what is the population of the world?

22 A. Currently the population of the world is
23 approximately 7.3 billion.

24 Q. So, our statistical analysis then is more
25 significant than the population of the entire globe?

1 A. Yes.

2 Q. And apart from Mr. Breaux's blood being
3 underneath his own fingernails, was there any evidence
4 of any other -- any other person's DNA underneath
5 Mr. Breaux's fingernails?

6 A. No, there was not.

7 Q. I want to talk to you about the gun, the
8 revolver, the hammer, the trigger, and the handle that
9 were tested.

10 A. Those are our Items 13, 14, and 15. Items 14
11 and 15, which were the gun trigger swabs and the gun
12 handle swabs, those underwent presumptive testing for
13 the presence of blood and both were negative. In
14 addition, Items 13, 14, and 15 proceeded on with
15 quantifying the amount of DNA present and DNA analysis.
16 And what we found for Items 13, 14, and 15, that there
17 was an insufficient amount of DNA or information was
18 obtained from 13 and 15 and no DNA results were obtained
19 from Item 14.

20 Q. So, when we're talking about the gun hammer,
21 trigger and handle, was there any detectable DNA on --
22 on those items?

23 A. Small detected for 2, but they were in --
24 not -- it wasn't enough to interpret. You do need a
25 quite a bit of DNA, of a profile in order to be able to

1 include or exclude any contributors. So, therefore,
2 there wasn't enough to make any type of interpretation
3 at all. And then one item, there was no DNA profile
4 detected.

5 Q. Now, let's talk for a second about DNA on a
6 gun. How long do you expect DNA to stay on a gun?

7 A. It's indefinite as long as it is stored on any
8 item -- the item is stored in conditions to where the
9 DNA is not necessarily rubbed off or insulted by weather
10 conditions or anything like that.

11 Q. What would cause DNA to come off of a gun?

12 A. Like I stated, cleaning, wiping, coming into
13 contact with any type of insult, such as water or any
14 type of liquid or brushing up against something. So,
15 some type of wiping.

16 Q. When you look at specific areas on a gun that
17 may be ridged or grooved, do you expect those areas to
18 hold DNA for more time or less time than smooth areas?

19 A. You would expect for it to hold more DNA when
20 coming in contact with a DNA source than smooth areas
21 because, of course, ridges will capture -- upon
22 friction, upon contact will transfer or scrape off more
23 DNA or cells that may be present from the DNA source.
24 So, ridges will tend to hold more and possibly longer
25 DNA that may be present.

1 Q. So, if you test a gun and you know the owner
2 and the owner handles the gun on a fairly regular basis,
3 would you expect to find the owner's DNA in those ridges
4 and dimpled areas?

5 A. I would expect to find the owner's DNA.

6 Q. And in this particular occasion, did you find
7 any DNA from Henry Joseph Breaux on that gun?

8 A. No, I did not.

9 Q. If we move to Item 12, which is the knife that
10 was recovered on the master bedroom bed, can you tell us
11 what the results were of your DNA testing of the knife?

12 A. In testing the knife, Item 12, we found that
13 there was an insufficient amount of human DNA present in
14 order to proceed with developing a DNA profile.

15 Q. So, again, no DNA on the knife, nothing that
16 you can interpret, anyway?

17 A. There -- we found that there was not enough DNA
18 in order to develop a profile. Therefore, additional
19 analysis was not conducted.

20 Q. If we continue to move through the house, let's
21 talk about the swab that was recovered from the side of
22 the -- of the victim's tub. And this would be
23 evidence -- or your No. 10, but the swab taken from the
24 side of the tub, did you do DNA analysis on Item No. 10?

25 A. Yes. We started out with doing presumptive

1 testing for blood on Item 10, which returned to be
2 positive. In addition, we proceeded with DNA analysis
3 and found that the profile obtained from Item No. 10,
4 the results were consistent with the DNA results
5 obtained from the reference sample of the decedent,
6 Henry Joseph Breaux.

7 Q. And if -- hypothetically speaking, if those --
8 if that swab was recovered from near his -- his body
9 immediately after he died, are those results in any way
10 surprising to you?

11 A. If they came into contact with a source of the
12 decedent's DNA, it would not be a surprise.

13 Q. The towel that was recovered from the closet of
14 the -- the floor of the closet, rather, is listed as the
15 towel that's No. 43. It's your No. 43. That towel is
16 actually in evidence. That towel is in evidence as
17 State's Exhibit 48. And now when we see this white
18 towel that is State's Exhibit 48, there appears to be
19 markings on it. Can you tell the jury how those
20 markings got there?

21 A. Those markings were placed by our laboratory.

22 Q. And for what purpose are those markings placed?

23 A. To identify areas of interest to be tested.

24 Q. And then in the bag along with the towel, we
25 find white paper. Can you explain to the jury what

1 those white papers are for or from?

2 A. These particular pieces of paper are actual
3 sheets, if you will, that are put down on our laboratory
4 bench on top of other sheets in an effort to isolate and
5 maintain clean conditions for the analysis of any
6 evidence item. In addition, after the analysis or the
7 investigation of the actual evidence item is completed,
8 in case there is any form of evidence that may have
9 fallen from that particular item, we will retain the
10 paper that the item was analyzed on, thereby saving any
11 evidence that may have fallen off. And we package it up
12 and send it back with the item after our testing.

13 Q. Also in the package that is State's Exhibit 48,
14 we see another -- a little bottle with liquid in it.
15 Can you tell the jury what that is?

16 A. This particular bottle is a part of one of our
17 testings that we do for the presence of human blood.
18 That is called HemaTrace. And this is the actual buffer
19 that the sampling of the item that we're testing is
20 placed in. And then we use a -- a card that will -- we
21 will put the buffer into that particular cartridge and
22 read the results from whether or not the item is
23 positive for the presence of blood. So, being that I
24 actually sampled a part of the evidence, I retained the
25 entire item because it came from the evidence.

1 Q. So, this essentially is part of your blood
2 testing procedure, your blood test kit?

3 A. Yes.

4 Q. How is it that you received the evidence at the
5 lab?

6 A. The evidence is typically submitted by the
7 investigating agency into our evidence receiving
8 department. From there, when the case is assigned to a
9 particular analyst, the analyst will work with the
10 evidence custodian and retain all evidence to be tested
11 from secure places in our DNA vault. And from there,
12 the analyst will then place those evidence items to be
13 tested in their own secure locker that only they have
14 access to in order to be able to retrieve the evidence
15 for testing.

16 Q. Do you get it in this evidence bag?

17 A. Yes, we do.

18 Q. And what do you do with it once you get it?

19 A. Once I get the evidence bag, on the bag I will
20 make identifying marks of my analysis and how it relates
21 to the case that I am testing for. So, you'll see my
22 initials, my date, the case number that is assigned to
23 that particular case, the item number that's assigned to
24 that particular case.

25 Q. And as you look at the bag that has the exhibit

1 sticker 48 on it, do you see your markings that you
2 would normally see, the case number, that sort of thing?

3 A. Yes, I do. I see the case number that is
4 evident by our laboratory's barcoding system when cases
5 are assigned our number, as well as my initials and date
6 of analysis and the item number I assigned to this
7 particular item.

8 Q. So, getting back to our little white towel,
9 what were the results of your analysis on this little
10 white towel that was recovered from the floor of the
11 closet where the victim was shot?

12 A. I -- for two of the -- actually, first of all,
13 the item was tested for the confirmatory presence of
14 blood. It was positive. And then two cuttings from
15 that item went through DNA analysis. And we found that
16 the results were consistent with the decedent, Henry
17 Joseph Breaux.

18 Q. If we -- and the statistical analysis on the --
19 on the blood for Henry Joseph Breaux, can you tell us
20 what the statistical analysis was?

21 A. You would expect to find this combination of
22 DNA profile in 1 in every 40 quadrillion Caucasians, 1
23 in approximately 104 quintillion African-Americans, and
24 1 in approximately -- 1 in every 102 quadrillion
25 Hispanics.

1 Q. Was anyone else's DNA other than Henry Joseph
2 Breaux's found on this towel?

3 A. No.

4 Q. All right. If we move on to the swabs that
5 were taken from the victim's shower -- let's see. Those
6 are in evidence as State's Exhibit 123. Do you see your
7 markings on that bag?

8 A. Yes, I do.

9 Q. And inside of this bag are all of these little
10 boxes. Can you explain to the jury what is in these
11 boxes?

12 A. That would be termed a swab box. Those boxes
13 are used to contain and store swabs taken from an item.

14 Q. So, with respect to the various swabbings that
15 were taken from the complainant's shower, the -- well,
16 let's -- let's start right off. Talk to me about Swab
17 No. 24. What's on Swab No. 24?

18 A. Swab No. 24 was tested for the presence of DNA
19 and the results obtained were consistent with Officer
20 Gary Clayton.

21 Q. And do you know who actually did the collection
22 on that swab?

23 A. Officer Gary Clayton was involved in the
24 collection of these swabs.

25 Q. So, is it unusual that from time to time,

1 despite our best evidence, occasionally a police officer
2 who is collecting evidence comes up in the profile of
3 the DNA swab?

4 A. It happens.

5 Q. And have you actually been out on the scene
6 doing evidence collection at any time?

7 A. Yes, I do.

8 Q. And what precautions are taken when you-all are
9 out in the field in order to reduce the risk that any
10 cross-contamination like that would happen?

11 A. Well, for our trace evidence collection team,
12 we actually gown-up in loads of plastic, aprons, a full
13 body tie-back which covers from head to toe and only the
14 face is exposed, with gloves, shoe covers, face masks.
15 And sometimes, depending on the conditions of the scene,
16 we also will wear sweat bands in order to prevent our
17 sweat from dropping onto whatever we may be working on
18 at the time.

19 Q. Do you know or have you been out with officers
20 who are doing this collection? Do they gown-up in the
21 same manner as the Harris County Institute for Forensic
22 Sciences team?

23 A. I will say that I don't necessarily pay
24 attention to what -- because they are responsible for
25 evidence at the scene. When I go to the scene with my

1 team, it's -- we're responsible for the body only.
2 Because being the medical examiner's office, the body is
3 our property. However, I can say in my experience I've
4 seen the responding agency gown in some form or fashion,
5 but not to the extent that we typically do for the
6 medical examiner's office.

7 Q. And is it fair to say that DNA testing is just
8 so sensitive that despite our best efforts, sometimes
9 our DNA is left behind?

10 A. That would a correct assessment.

11 Q. So, moving onto the other swabs that were taken
12 from the shower where Deputy Clayton was doing the
13 collection, if we talk specifically about Swab No. 29
14 and Swab No. 38, what were the -- the results of the
15 analysis of those two swabs?

16 A. For both swabs, the results obtained were
17 consistent with the decedent, Henry Joe Breaux.

18 Q. And what is the chance that the same genetic
19 profile would be found in a random selection of the
20 population?

21 A. Items 29 and 38, the expected statistic would
22 be for this particular profile, once in 40 quadrillion
23 Caucasians, once in 124 quintillion African-Americans,
24 and once in every 102 quadrillion Hispanics.

25 Q. Now, the other swabs that were taken from that

1 shower, specifically 19 and 20, 28, 30, and 31, was DNA
2 found on those swabs?

3 A. Yes.

4 Q. Whose DNA was found on those swabs?

5 A. The DNA profile obtained from those swabs were
6 also consistent with the DNA profile of the decedent.

7 Q. And is it fair to say that they were
8 consistent, but just in a lesser concentration?

9 A. That would be fair.

10 Q. With respect to Swab No. 26, what was the
11 result of your analysis?

12 A. For Swab No. 26, the results -- the results
13 obtained were that there were no DNA results present.

14 Q. Now, do you do serology -- or did you do
15 serology testing on the swabs in the shower?

16 A. Some of them we did. For specifically Item
17 No. 26, no, we did not.

18 Q. In terms of -- was there any serology --
19 because our swabs from the shower are your Item Nos. 16
20 through 39; is that right?

21 A. That is correct.

22 Q. And was there any serology testing conducted on
23 16 through 39?

24 A. No, there was not.

25 Q. And when we're talking about serology, we're

1 looking for the presence of blood; is that right?

2 A. We're looking for the presence of certain types
3 of biological fluids, which could be blood, semen,
4 saliva.

5 Q. Why do we not do serology screening on -- on
6 the shower swabs?

7 A. During our analysis when we're assessing
8 whether or not a particular item needs to be tested for
9 the presence of a certain biological fluid, the first
10 things we'll do, we'll assess the color of that
11 particular item. These particular swabs did not appear
12 to have what we'd expect as far as staining of blood,
13 which can range anywhere from some type of brown to some
14 type of red or darker. These particular items did not
15 exhibit what we would expect to be the presence of
16 blood. Therefore, we just proceeded on with the DNA
17 analysis without doing any type of biological fluid
18 testing.

19 Q. So, for instance, when an area is sprayed down
20 with fluorescein and made to fluoresce or turn purple or
21 one of those things, and the officers believe there is a
22 presumptive positive for blood out there in the field
23 and they bring it in there to you and you've got that
24 purple swab, do you then do testing for blood?

25 A. No, I would not because purple does not

1 indicate to me the presence of blood.

2 Q. When you say purple doesn't indicate for you
3 the presence of blood, you mean people don't bleed
4 purple?

5 A. That would be correct.

6 Q. But to an officer out in the field who has
7 sprayed that and gotten that illumination, that to him
8 would indicate the presence of blood?

9 A. Yes. If he's used a field test that has a
10 Colorimetric response of a purple hue, then -- a swab
11 taken of that, then that would be blood for him.
12 However, not in my laboratory.

13 Q. All right. So, if we move on from the swabs
14 taken in his shower and move into the swabs taken from
15 her bathroom, which are 40 through 42, can you tell the
16 jury what you found in terms of the presence of DNA
17 in -- in the defendant's bathroom?

18 A. For Items 40, 41, and 42, 41 and 42 both were
19 consistent with the DNA profile of Marcia Dinanno. And
20 for Item No. 40, there was insufficient information
21 obtained from that particular item to interpret.

22 Q. And, again, on 40, 41 and 42, did you do any
23 type of presumptive or confirmatory blood testing?

24 A. No, I did not.

25 Q. And why was that?

1 A. Because the swabs did not indicate to me that
2 there was a need to test for the presence of blood.

3 Q. Were they purple?

4 A. Yes, they were.

5 Q. In terms of the probability that you would find
6 the same genetic profile in the population, I guess
7 specifically with respect to Item No. 42, what was --
8 what is the statistical probability that you'll find
9 someone else in a random selection of the population
10 with the same genetic profile as you found?

11 A. That statistical analysis would be once in
12 every 6 trillion Caucasians, once in every 188 trillion,
13 and once in every -- once in every 6 trillion Hispanics.

14 Q. And with respect to Item No. 41, what were the
15 odds of finding a similar genetic profile?

16 A. The statistics on Item No. 41 is that you could
17 expect to find someone in the population about once in
18 every 45 Caucasians, once in every 79 African-Americans,
19 and once in every 64 Hispanics.

20 Q. Now, what causes -- what causes the statistical
21 probability on one swab to be quadrillions and in
22 another swab to be 1 in 45?

23 A. The difference in these two items is that the
24 amount of DNA that was detected in a particular profile.
25 For Item No. 42, it was a full DNA profile, meaning that

1 for every -- every location on the DNA that we test for
2 to develop a DNA profile, it actually gave results.
3 Sometimes when there is less of an amount of DNA, then
4 not all of the locations that you test for will actually
5 be detected. Therefore, there were less areas on Item
6 No. 41 that were detected. So, only those areas that
7 were detected could be used for statistical analysis.

8 THE COURT: Let me interrupt you there,
9 Ms. Harvey. We are going to take our lunch break at
10 this time.

11 Jurors, go with the bailiff.

12 (Lunch recess)

13 (Open court, defendant and jury present)

14 THE COURT: Thank you. Please be seated.
15 And, Ms. Harvey, you may proceed with
16 direct examination.

17 MS. HARVEY: Thank you, Your Honor.

18 Q. (By Ms. Harvey) Okay. I think we were just
19 finishing up with her blood in her bathroom. So, if we
20 move on to Item No. 50, which is her white shirt. And
21 the shirt is in evidence as State's Exhibit 22. As you
22 look at the bag for the contents of State's Exhibit 22,
23 do you see your markings on that bag?

24 A. Yes, I do. I can identify our laboratory case
25 number, item number, and barcode.

1 Q. So, inside of State's Exhibit 22, is this the
2 white shirt that you tested?

3 A. Yes, it is.

4 Q. And, again, we see a series of markings on the
5 shirt. Why are those markings made?

6 A. Those markings are made to identify areas of
7 interest to test.

8 Q. And were there a number of areas of interest on
9 this shirt?

10 A. Yes, there were.

11 Q. Now, also in the bag for State's Exhibit 22,
12 again, we have that white paper that's bundled up. What
13 was that used for?

14 A. That is the paper the item was laid out on for
15 analysis. And it was retained in order to preserve
16 anything that may have fell off that item during
17 analysis.

18 Q. And, again, we have one of those little vials.
19 And can you explain to the jury what the vial is?

20 A. Again, that's the HemaTrace vial. And that is
21 the actual vial that we will sample an item for and
22 place it in that buffer in order to test for the
23 presence of human blood.

24 Q. So, with respect to your Item No. 50, the white
25 shirt, what were your results -- well, was it tested for

1 serology?

2 A. Yes, it was.

3 Q. And was blood detected on the item?

4 A. Blood was detected on the item.

5 Q. Was there DNA detected on the item?

6 A. Yes, there was.

7 Q. And what were the results of the DNA analysis
8 on the item?

9 A. For Item 50A-2, the results, the DNA results,
10 were consistent with the DNA profile that was obtained
11 from the decedent, Henry Joseph Breaux.

12 Q. And what was the calculation with respect to
13 the probability of finding someone else in a random
14 selection of the community with that same DNA profile?

15 A. Again, it would be 1 in 40 quadrillion
16 Caucasians, 1 in 124 quintillion African-Americans, and
17 1 in every 102 quadrillion Hispanics.

18 Q. Was anyone else's DNA detected on this white
19 shirt?

20 A. For cutting Item 50C-1, the profile obtained
21 from that cutting of the shirt was consistent with a
22 mixture of two individuals. And Marcia Dinanno and
23 Henry Joseph Breaux could not be excluded as possible
24 contributors.

25 Q. If we -- what was the -- the statistical

1 calculation with respect to finding another DNA profile
2 in a random selection of the community that matched what
3 your results were on that cutting?

4 A. The frequency of occurrence of an individual
5 who could be a contributor to this particular mixture
6 would be expected to be found in 1 in every 8
7 Caucasians, 1 in every 33 African-Americans, and 1 in
8 every 9 Hispanics.

9 Q. Apart from the two contributors, was there
10 anyone else's DNA found on the white shirt?

11 A. No, there was not.

12 Q. With respect to Item No. 48, which would be the
13 panties that have been entered into evidence as State's
14 Exhibit 23, do you recognize any of your markings on
15 this evidence bag?

16 A. Yes, I do. It has the laboratory barcode as
17 well as the handwritten case number and item number of
18 our laboratory.

19 Q. And these are the white panties. Again, we see
20 markings on these panties. For what purpose is that
21 placed?

22 A. In order to designate areas of interest to
23 test.

24 Q. Were there -- did you test these panties for
25 blood?

1 A. Yes, we did.

2 Q. Did you find any blood on the panties?

3 A. We found there to be stains of -- that were
4 presumptively positive for blood.

5 Q. Were you able to do any further analysis of the
6 panties?

7 A. In addition to that finding, an attempt to
8 determine how much DNA was present in order to proceed
9 on to DNA analysis, we found that particular item, the
10 two cuttings taken from it, did not contain enough DNA
11 to proceed with DNA analysis.

12 Q. How does placing clothes in water affect your
13 ability to extract DNA from them later on?

14 A. Well, water can definitely wash away or remove
15 DNA from a particular item, as well as it has the
16 capabilities along with other insults, such as
17 detergents, to actually break open cells to where you
18 can lose DNA.

19 Q. If we move on to your Item No. 49, which are
20 the black pajama pants, they're in evidence as State's
21 Exhibit No. 25, can you identify that bag?

22 A. Yes, I can. It exhibits the barcode of our
23 laboratory as well as the case number and item number.

24 Q. And inside this bag we find, again, the white
25 paper as well as two items that are labeled as double

1 slide holder. Can you explain to the jury what those
2 are?

3 A. These particular cardboard folds, if you will,
4 have slots in there where we will store microscope
5 slides. We use microscope slides in our process in
6 order to help determine the presence of seminal fluid or
7 semen.

8 Q. With respect to the black floral pajama pants,
9 did you do an analysis with respect to the presence or
10 absence of semen on those pants?

11 A. Yes, we did.

12 Q. And what were the results of your analysis?

13 A. No semen was detected on that item.

14 Q. Was any further testing done with the black
15 floral pajama pants?

16 A. No.

17 Q. Was there any DNA detected or was it tested for
18 DNA?

19 A. No, it was not.

20 Q. Why not?

21 A. Because based on the circumstances of the case,
22 we were interested in trying to find possibly the semen
23 deposition or the semen stain of a male individual that
24 may have been involved in this particular scenario.
25 Being that we did not find any semen stains and we knew

1 the pajama pants to be of the owner, Ms. Dinanno, then
2 there was no need to further test.

3 Q. If you know the owner of the pants is the
4 defendant and there aren't any obvious staining -- there
5 isn't any other obvious staining on the pants, is there
6 any way for you then to select an area to just randomly
7 DNA test or why would you do that?

8 A. In a scenario such as this, the only way we
9 would possibly randomly select an area to test, being
10 that the stains that we were looking to possibly find on
11 this item did not prove to be positive, then if we were
12 to take a range of cutting, we would expect to get the
13 DNA profile of the owner or the wearer of that item.

14 Q. So, if we move on to your Items 44 and 45,
15 those are the socks. They're in evidence as State's
16 Exhibit 24. Do you recognize your markings on the bag?

17 A. Yes, I do. We have our laboratory's barcode
18 numbering, the case number, as well as the item numbers.

19 Q. And inside the socks, once again, we find the
20 paper. Did you find areas of interest on the socks?

21 A. Yes, we did.

22 Q. And what was the results of -- or what were
23 your results of the testing of the socks?

24 A. Well, the serology results of the testing on
25 the socks were confirmatory for the presence of blood on

1 both items. Both items -- several cuttings were taken
2 from each and DNA analysis was performed on those
3 cuttings.

4 For item or cutting 44B-1, the DNA profile
5 resulted in a mixture of more than one person. The
6 mixture contained a major contributor, meaning one
7 person there more abundantly than the other. The major
8 contributor was consistent with Marcia Dinanno. And in
9 addition, there was insufficient information to
10 determine whether Henry Joseph Breaux was an actual
11 contributor to that mixture.

12 For cuttings 45B-2, the results were
13 consistent with a mixture of more than one individual.
14 Marcia Dinanno and Henry Joseph Breaux both cannot be
15 excluded as possible contributors to the mixture on this
16 cutting.

17 For cutting 44C-1, no conclusion could be
18 reached as to whether or not the results were from more
19 than one individual. And there was insufficient
20 information to determine whether Marcia Dinanno is a
21 contributor to that DNA. Henry Joseph Breaux was
22 excluded.

23 On Item 45, cutting 45D-1, the DNA result,
24 there was no conclusion to be reached as to whether the
25 DNA profile was from one or more than one individual and

1 there was insufficient information to determine whether
2 Marcia Dinanno or Henry Joseph Breaux are possible
3 contributors to that stain.

4 For cutting 45C-1, there was insufficient
5 information obtained in order to interpret. And for
6 cutting 45A-1, no results were obtained.

7 Q. What causes you to have insufficient
8 information in order to draw any conclusions?

9 A. Basically, the lack of DNA present, not enough
10 for the system to actually detect what is there.

11 Q. And when we talk about the markings that are
12 made on any item, but as we're talking about the socks,
13 let's talk about the socks. Why do you -- why do you
14 circle the areas that are circled?

15 A. So that we can know exactly the areas we are
16 identifying as areas of interest to test.

17 Q. And how do you determine what is and is not an
18 area of interest?

19 A. Based on the circumstances surrounding a
20 particular case and the biological fluids that we are
21 most interested in identifying, we will first visually
22 try to identify. For instance, if we are interested in
23 the presence of blood, all stains that appear to have a
24 color or hue that could resemble blood, anywhere from
25 that yellowish-brown all the way through red and brown.

1 Then we will circle that and begin to test it for
2 whether or not it's blood.

3 Of course, if we're looking for something
4 such as semen, then we will start off with visual again
5 and we will look for areas that appear to be somewhat
6 stained. We will also use a light of a certain
7 wavelength, a crime light, that actually will have
8 certain stains, such as seminal stains, illuminate or
9 glow under that particular light.

10 Once again, if we identify any stains like
11 that, if we're interested in those, we will circle them.
12 Because, of course, when you turn the lights back on, if
13 you didn't circle it, you won't know where it is.

14 Q. Moving on to your Items 46 and 47, which are
15 the defendant's slippers. They are in evidence marked
16 as State's Exhibit 73. Do you recognize your markings
17 on the bag that is marked State's Exhibit 73?

18 A. Yes, I do. Identified by our laboratory's
19 barcode, our case number, and our item numbers.

20 Q. State's 73 are the slippers. Again, the
21 markings that are made on here with the silver marker,
22 are those made by you or your laboratory?

23 A. Yes, they are.

24 Q. And also inside the bag that is marked as
25 State's Exhibit 73, do we again have that bench paper?

1 A. Yes.

2 Q. Is there also one of the blood test vials from
3 your lab?

4 A. Yes.

5 Q. With respect to -- now, you have labeled the
6 slippers separately; is that right?

7 A. That is correct.

8 Q. So, slipper -- No. 47, that's our left slipper,
9 right?

10 A. Item No. 47 would be our right slipper.

11 Q. Oh, the right slipper. Sorry.

12 So, 47 is the right slipper. What were
13 your results with respect to testing of your Item
14 No. 47?

15 A. For Item No. 47, in performing serology testing
16 on that particular item, we did find that presumptive
17 tests for blood were positive. However, that same stain
18 did not respond to the test for the human origin of
19 blood. In addition, Item No. 47, cutting 47B-1, when we
20 moved on to DNA analysis, that particular cutting did
21 not contain enough DNA in order to proceed with the
22 profile.

23 Q. Now, you said that it was presumptive for blood
24 but didn't respond to tests for human origin. Why would
25 that be?

1 A. Well, presumptive tests are just that. They
2 are not confirmatory in the sense that a presumptive
3 test will give you a positive result for the test that
4 you are targeting. In this case, blood. However, there
5 are other things out there in nature or other reagents
6 or solutions that can cause that particular presumptive
7 test to give you a positive as well.

8 Q. So, because it didn't respond to human origin,
9 does that immediately mean that it's some sort of animal
10 blood?

11 A. No, it does not.

12 Q. What does it mean?

13 A. There are several things that could have
14 occurred. A positive result for presumptive could mean
15 that there is blood detected there. It could also mean
16 that there's some other type of oxidizing reaction going
17 on, such as hair products or fertilizer. Such things
18 could also cause that test to be positive. However, a
19 negative result for the confirmatory test does not
20 necessarily mean there is no DNA present. However, it
21 may also not be enough in order to give you a positive
22 result for the testing of human blood. There is a
23 threshold of which the concentration of hemoglobin in
24 the blood has to meet in order to trigger the test to be
25 positive. It is quite sensitive. However, if there's

1 not enough, it will not give a result.

2 Q. If we move back over to the left slipper, which
3 is your Item No. 46, can you tell the jury what your --
4 what the results of your testing of the left slipper
5 was?

6 A. For the serology testing, blood was detected on
7 Item No. 46. In addition, in moving on to determining
8 the amount of DNA present, four cuttings or swabbings
9 from Item No. 46 did not contain enough DNA in order to
10 proceed on with DNA analysis. However, four other
11 cuttings or swabbings for that particular item did
12 proceed on to DNA analysis. For Item 46, cutting 46C-1,
13 the DNA results obtained are consistent with Henry
14 Joseph Breaux.

15 For cutting 46G-1, the results are
16 consistent with a mixture for more than one individual.
17 Marcia Dinanno cannot be excluded as a possible
18 contributor to this mixture. And there's insufficient
19 information to determine whether Henry Joseph Breaux is
20 a contributor to that mixture.

21 For both swabbings or samplings of item --
22 cutting 46A-2 and 46D-1, the results are consistent with
23 mixtures of DNA for more than one individual. Marcia
24 Dinanno and Henry Joseph Breaux cannot be excluded as
25 possible contributors to both of these samplings.

1 Q. Now, specifically with respect to the slippers,
2 was there any blood detected in the slipper on the white
3 fuzzy part where your foot would go in either slipper?

4 A. No, there was not.

5 Q. And on 47, down on the white -- the white fuzzy
6 part where your foot would go?

7 A. No, there was not.

8 Q. In the totality of your analysis, did you
9 discover any DNA profiles which were not accounted for
10 by either the defendant, the complainant, or Deputy
11 Clayton?

12 A. No, I did not.

13 MS. HARVEY: Pass the witness.

14 THE COURT: Mr. Varela.

15 MR. VARELA: Yes.

16 **CROSS-EXAMINATION**

17 **BY MR. VARELA:**

18 Q. You also -- in addition to doing lab work as
19 you've described, you also collect from scenes, correct?

20 A. Yes, I do.

21 Q. Let's talk about that very briefly. At a given
22 scene, there could be DNA left behind that's just not
23 recovered, correct?

24 A. That's possible.

25 Q. And it is possible that that, would leave you

1 to believe that there are -- it's possible there could
2 be people there that just didn't leave DNA behind?

3 A. That is also possible.

4 Q. And, of course, there's no way to know that
5 from the DNA because nothing appears to be left behind,
6 right? In other words, you can only process what DNA is
7 left behind that you actually collect?

8 A. I can only process samples that I receive in
9 the laboratory.

10 Q. So, first it has to be left behind, right?

11 A. That is correct.

12 Q. Then it has to be collected?

13 A. That is correct.

14 Q. And it's possible that it could be left behind
15 but not be collected, right?

16 A. That is a possibility.

17 Q. But if it's both left behind and collected,
18 then there could be insufficient amount to amplify for
19 the PCR chain reaction to be -- to take place in your
20 lab, right?

21 A. That is correct.

22 Q. So, it has to be left behind, it has to be
23 collected, and there has to be enough to use in your
24 lab, correct?

25 A. That is correct.

1 Q. And if all three of those conditions are not
2 met, like in that order, then you are unable to offer an
3 opinion about DNA, right?

4 A. Are you speaking of DNA as a whole? Can you
5 clarify that question, please?

6 Q. Yes. If it's not left behind, or if it is and
7 it's not collected, or if there's not enough collected
8 for you to amplify, then you can't use that in the lab,
9 correct?

10 A. If it's not collected, it would not be
11 delivered to the lab.

12 Q. Or if there's not enough sufficient for you to
13 use in the amplification process to give us an opinion,
14 right?

15 A. That is correct.

16 Q. Okay. So, several conditions have to be met
17 before you can actually do your analysis and give us an
18 opinion?

19 A. That is correct.

20 Q. Let's talk about a house. A person could come
21 into a room, stay a while and then exit, and not leave
22 any DNA behind, right?

23 A. That is possible.

24 Q. Or not leave enough behind to analyze?

25 A. Also possible.

1 Q. Let's talk about houses, then. Let's just talk
2 about a typical house where people live. Okay? The
3 longer a person spends inside a house, the greater the
4 likelihood that you'll find DNA to collect, correct?

5 A. That is correct.

6 Q. For instance, let's take a hypothetical
7 situation like my house. Let's say you have a person
8 who lives in a house for a number of years. You
9 wouldn't have any problem typically collecting my DNA
10 out of my house, correct?

11 A. Assuming that you touch things and live in the
12 house, I would not -- I would expect to find your
13 profile within the house.

14 Q. In fact, if you looked at a hypothetical
15 situation, a guy that's lived in a house for years, for
16 a period of years, it would be shocking if you didn't
17 find any collectible DNA, right?

18 A. That would -- that's correct.

19 Q. So, when we live in a house, we just leave DNA
20 all over the house, essentially?

21 A. Yes. You do tend to leave DNA behind wherever
22 you go.

23 Q. So, if I said: That house over there, I've
24 never lived in that house, you test that house for DNA,
25 correct?

1 A. Can you repeat the question?

2 Q. If I said: That house over there, you know, I
3 don't live in that house, you could inspect that house,
4 collect DNA, and if I'm not telling the truth and I did
5 live there, you'd find plenty of my DNA, right?

6 A. That could be expected. However, I don't do
7 collections from crime scenes. I collect from decedents
8 at crime scenes.

9 Q. Okay. But a person who doesn't live in a
10 house, who just comes over once, stays a little while
11 and leaves, there's less of an expectation that you're
12 going to find his DNA in that house, correct?

13 A. Depending on the circumstances. It's a
14 possibility.

15 Q. The more time you spend in a house, the greater
16 the likelihood your DNA will be found there?

17 A. Once again, depending on the circumstances and
18 what the person actually involved themselves in that
19 particular area. The amount of DNA left behind can
20 vary.

21 Q. All right. Let's talk about DNA on items. The
22 longer time a person is in contact with a given item
23 such as clothing, the greater the likelihood he's going
24 to deposit his DNA on that clothing, correct?

25 A. That is correct.

1 Q. So, if I wear a shirt for an entire day,
2 there's a pretty good chance that my epithelial cells,
3 that sort of thing, is going to end up on that shirt?

4 A. That's a good estimation, yes.

5 Q. And if I have a momentary contact, like I pat
6 Mr. Alexander here on the shoulder, there's a reduced
7 likelihood that I'm going to leave DNA behind on his
8 coat, correct?

9 A. There is a reduced likelihood. However, there
10 is the chance of leaving less with minimal contact.

11 Q. Okay. The more contact, the better result for
12 your analysis, right?

13 A. Possibly.

14 Q. Okay.

15 MR. VARELA: Pass the witness.

16 **REDIRECT EXAMINATION**

17 **BY MS. HARVEY:**

18 Q. In a case where there's been an allegation of a
19 sexual assault, from what source is your best chance to
20 get DNA?

21 A. If a sexual assault has occurred, the -- if an
22 ejaculation has occurred during that sexual assault from
23 a male, then the best source of recovering DNA would be
24 the results from a semen stain. Likewise, if the sexual
25 assault did not, say, involve an ejaculation, then a

1 sexual assault by nature requires some type of contact
2 between individuals. Therefore, the exchange of any
3 bodily fluids such as sweat, saliva from one person to
4 another, those areas or swabbings of areas would be
5 tested or you would expect to find some type of transfer
6 of DNA between the two individuals.

7 Q. And in order to do that would you be interested
8 in seeing vaginal swabs?

9 A. Yes, I would.

10 Q. Perhaps, epithelial swabs or skin swabs from
11 the insides of the legs or the vagina itself?

12 A. Yes.

13 Q. As part of the sexual assault kit in this case
14 did you receive anything like?

15 A. No, I did not.

16 MS. HARVEY: Pass the witness.

17 THE COURT: Mr. Varela.

18 MR. VARELA: Yes.

19 **RE-CROSS-EXAMINATION**

20 **BY MR. VARELA:**

21 Q. But if the sexual assault was performed by an
22 object rather than a penis or a digit, a finger, you
23 would expect there would be a lower likelihood of DNA
24 transfer into that assaulted female, correct?

25 A. When two objects come into contact, DNA is

1 transferred. So, it really depends on the circumstances
2 in the situation as to how much that object has been
3 touched by one person and then touched the other.

4 Q. Let me -- without being too crude, you'd expect
5 a lot of DNA to be left behind from a penis into a
6 vagina in a sexual assault situation, correct?

7 A. If ejaculation has occurred.

8 Q. And even if ejaculation didn't occur,
9 epithelial cells, skin cells from the penis might be
10 left behind, correct?

11 A. They can be, yes.

12 Q. But if the assailant grabbed a random object,
13 like Mr. Alexander's marker over there, that would
14 decrease the likelihood that the assailant's DNA would
15 be deposited in the vagina by that marker, correct?

16 A. It would depend on how much of the assailant's
17 DNA is already on that marker.

18 Q. And that's a variable you wouldn't necessarily
19 know, would you?

20 A. That is correct.

21 MR. VARELA: All right. Pass the witness.

22 THE COURT: Anything further?

23 MS. HARVEY: Nothing further, Your Honor.

24 THE COURT: May this witness be excused?

25 MS. HARVEY: Yes, Your Honor.