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APPELLATE COURT NO. 01-87-0306-CR
IN THE COURT OF APPEALS
OF THE STATE OF TEXAS

ALVA A. SAUNDERS,
Appellant,
VS.
THE STATE OF TEXAS,
Appellee.

APPEAL FROM 178TH DISTRICT COURT
HARRIS COUNTY, TEXAS
Judge William T. Harmon, Presiding

STATEMENT OF FACTS
(TRIAL)
(VOLUME II OF III)

Gail K. Williams
Official Court Reporter
178th District Court
Harris County, Texas

1 Q. And that was done over in the -- at the
2 Harris County Jail?

3 A. Yes, in the medical clinic.

4 MR. ANDERSON: Pass the witness.

5 MR. KELLY: That's all I have, Judge.

6 THE COURT: May this witness be excused?

7 MR. ANDERSON: Yes, Your Honor.

8 THE COURT: Call your next witness.

9 MR. KELLY: John Pantermuehl.

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1 JOHN PANTERMUEHL

2 was called as a witness by the State and, having
3 been duly sworn, testified as follows:

4 DIRECT EXAMINATION

5 BY MR. KELLY:

6 Q. Will you state your name for the record
7 please?

8 A. John Pantermuehl.

9 Q. Officer Pantermuehl, how are you
10 employed?

11 A. I'm a lieutenant of investigators for
12 the Harris County District Attorney's Office.

13 Q. How long have you been so employed with
14 the District Attorney's Office?

15 A. A little over ten years.

16 Q. Were you so employed on March 27, 1987?

17 A. Yes, sir, I was.

18 Q. On that date did you have an opportunity
19 to go over to the Harris County Jail to pick up a
20 package from Mr. Cupit?

21 A. Yes, sir, I did.

22 Q. I show you what's been marked for
23 identification purposes as State's Exhibit No. 22
24 and ask you if there's any identifying
25 characteristic on that envelope that would allow

1 you to determine whether or not that was the same
2 envelope you picked up on March 27, 1987?

3 A. Yes, sir, it is. I dated it, timed it
4 and initialed it.

5 Q. After you dated, timed and initialed it
6 where did you bring this?

7 A. I immediately took it over to the HPD
8 crime lab and turned it over to James Bolding, a
9 chemist.

10 Q. When you turned it over to Jim Bolding,
11 the chemist over at the Houston Police Department,
12 was the envelope still sealed?

13 A. Yes, sir, it was.

14 MR. KELLY: That's all I have. I pass
15 the witness.

16 CROSS-EXAMINATION

17 BY MR. ANDERSON:

18 Q. Were you present at the jail when the
19 samples which are contained in State's Exhibit 22
20 were obtained?

21 A. No, sir, I was not.

22 MR. ANDERSON: Pass the witness.

23 MR. KELLY: That's all I have, Judge.

24 THE COURT: May this witness be excused?

25 MR. ANDERSON: Yes, sir.

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THE COURT: Call your next witness.

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MR. SINGER: The State calls Reidun

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Hilleman.

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1 REIDUN HILLEMAN

2 was called as a witness by the State and, having
3 been duly sworn, testified as follows:

4 DIRECT EXAMINATION

5 BY MR. SINGER:

6 Q. State your name for the ladies and
7 gentlemen of the jury.

8 A. My name is Reidun Hilleman.

9 Q. And how are you employed?

10 A. I'm a chemist for the Houston Police
11 Department crime laboratory.

12 Q. What is your position at the crime lab?

13 A. At the present time I'm the supervisor
14 of the trace evidence section.

15 Q. And what does the trace evidence section
16 do?

17 A. The trace evidence section analyzes
18 hairs, fibers, glass, soil, gunshot residue on any
19 kind of substance excluding body fluids and
20 narcotics.

21 Q. What are your training or qualifications
22 for that position?

23 A. I have a bachelor of science degree in
24 chemistry, and I received on-the-job training in
25 the laboratory, and I've also attended various

1 schools on the analysis of paints and plastics and
2 hairs and fibers.

3 Q. Have you attended the FBI academy on
4 hairs and fibers?

5 A. Yes, I have.

6 Q. How long have you worked in the lab
7 comparing hairs and other items?

8 A. I was trained to analyze or compare
9 hairs about three years ago. I have been working
10 in the trace evidence section for a little over
11 three years.

12 Q. Is the comparison of hair like the
13 comparison of fingerprints?

14 A. No, not in that it is -- it is not
15 personal identification.

16 Q. If you have two hairs, one from a known
17 sample and one from an unknown sample, are you
18 ever able to say that positively 100 percent
19 they're from the same person like, say, a
20 fingerprint?

21 A. No, it is not possible.

22 Q. What can you say 100 percent positively
23 for sure when you do a hair comparison?

24 A. We can tell the racial origin, the body
25 area to a certain extent, force of removal,

1 usually any kind of chemical treatment such as
2 dying or bleaching and damage to the hair.

3 Q. Can you tell anything other than race to
4 a certainty?

5 A. Not to 100 percent. Body area we can
6 usually narrow to head and pubic, and other body
7 area hairs are not as easy to place, say, to the
8 arm or leg.

9 Q. How do you go about comparing two hair
10 samples? What do you actually do?

11 A. I receive unknown hairs, and then I
12 receive a known sample from the person to which
13 they want the hairs compared. We like to have 20
14 to 30 hairs from which we choose a random sample
15 and look at under the microscope, and I determine
16 a range of variation in the known sample, and then
17 I examine the unknown hairs to see if they fit
18 into that range of variation.

19 Q. What is the -- what is a range of
20 variation? What are you talking about?

21 A. I examine the hair, the known sample,
22 for the characteristics of the pigment, the medula,
23 the cuticle, the scales, the internal structures
24 of the hair. Not every hair on a person's head or
25 pubic area is identical. So there will be

1 variations from hair to hair even on the same
2 person. So I determine how wide that variation is
3 for that person's hair.

4 Q. Is there a difference in the range of
5 variation between a white person and a black
6 person generally?

7 A. In general, yes, there is. Caucasian
8 hairs tend to vary much more widely from person to
9 person than negroid hairs.

10 Q. Is it possible to -- let's say you
11 pulled a hair from the right side of my head and
12 left side of my head. Is it possible those hairs
13 would be microscopically dissimilar?

14 A. It's possible they would have
15 dissimilarities, yes.

16 Q. Would that be also true if you took two
17 pubic hairs from a person?

18 A. Yes.

19 Q. Even though the hairs would be
20 dissimilar or microscopically dissimilar would you
21 be able to tell the race of the person -- is it
22 possible to find a caucasian hair and negroid hair
23 on the same person?

24 A. No. It's possible to have hairs that I
25 can't really categorize as to racial group. They

1 may have characteristics of both racial groups but
2 not to the extent that I find one that's
3 definitely negroid and then one that is caucasian.

4 Q. What are the types of things that affect
5 the characteristics or the range of variation in
6 hair?

7 A. Well, hairs are not like blood groups
8 which are determined genetically. Hairs are
9 influenced by genetics, but they're also
10 influenced by the environment of the person. So
11 things such as diet, their grooming
12 characteristics can have an effect on what the
13 hair looks like as well as the genetics of that
14 person.

15 Q. Is it possible, let's say, if you pulled
16 a hair from me today and a year from now that they
17 would be dissimilar?

18 A. Yes, it is possible.

19 Q. Would a change of environment, let's say,
20 from somebody that's out in society living in
21 Houston and then spends a long period of time or
22 more than a year in jail, could that kind of
23 change of environment affect a person's hair
24 characteristics?

25 A. It could have some, yes.

1 Q. Did you have an occasion to examine some
2 hairs that were taken from a bedspread in this
3 particular case?

4 A. Yes, I did.

5 Q. Did you compare those hairs to a known
6 sample from the defendant, Alva Saunders?

7 A. Yes, I did.

8 Q. What was the result of your comparison?

9 A. The hair from the bedspread was a
10 negroid pubic hair. I found it to be dissimilar
11 microscopically from the known sample from Mr.
12 Saunders.

13 Q. Do you know when the sample, the pubic
14 hair sample, was taken from Mr. Saunders?

15 A. I know when I received it in the
16 laboratory.

17 Q. When was that?

18 A. It was on March 30th of this year.

19 Q. Do you know when the sample from the
20 bedspread was given to you?

21 A. I assume that it was collected -- it was
22 also given to me on March 30th, but it was
23 collected at the time of the offense.

24 Q. That would be January of 1986?

25 A. That's correct.

1 Q. How can you account for the difference
2 or can you account for the difference in the
3 characteristics on the two hairs that you compared,
4 the one from the bedspread and the one from the
5 defendant?

6 A. One possibility is the hair is not his.
7 Another possibility, if we assume that he did
8 deposit those hairs there, is that they were loose
9 on him from somebody else when he committed the
10 offense, and another possibility is that the 14-month
11 difference between the time of the offense and the
12 time the hairs were collected would cause some
13 differences to be in the hair, enough that I would
14 call them dissimilar.

15 Q. Are both the samples that you looked at,
16 the known sample from the defendant that was taken
17 in March of '87 and the hair from the bedspread
18 that was taken in January of '86, are they both
19 hairs from black people?

20 A. Yes, they are.

21 Q. Could you -- the differences that you're
22 talking about, dissimilarities, could someone take
23 those two hairs and look at them with the naked
24 eye and tell they're dissimilar?

25 A. No.

1 Q. What type of differences are you
2 speaking about?

3 A. I'm speaking of microscopic differences.

4 Q. Are you telling us those hairs are
5 definitely from different people?

6 A. No. I'm saying they're dissimilar to
7 each other.

8 Q. If someone, let's say, was placed in
9 jail for an offense and stayed there for 14 months
10 before he gave a sample, could that cause the
11 differences that you saw in the comparison of the
12 hairs that we're talking about? Would that
13 account for those dissimilarities?

14 A. It might be able to, yes, depending on
15 how different the jail environment was from his
16 previous environment.

17 Q. Diet and other things like that are you
18 talking about?

19 A. Yes, mainly diet.

20 Q. How many hairs do you need or what type
21 of a sample do you need in order to do a good
22 comparison?

23 A. For it to be forensically valid I prefer
24 to have 20 to 30 known hairs. From those I choose
25 usually ten that I feel represent that sample, and

1 I mount those up and look at them on slides.

2 Q. Did you also examine a hair that was
3 taken out of a rape kit?

4 A. Yes, I did.

5 Q. What did the comparison of that hair
6 reveal?

7 A. It was also a negroid pubic hair which
8 was microscopically dissimilar to the known pubic
9 hairs of Alva Saunders.

10 Q. Did you compare any more than two hairs
11 to the known sample of the defendant? Did you
12 have any other hairs besides the two, the ones
13 from the bedspread and the rape kit?

14 A. There were other hairs from the
15 bedspread and rape kit, but they were caucasian
16 hairs and some animal hairs.

17 Q. The victim's hairs and some animal hairs?

18 A. There were caucasian hairs that were
19 consistent with the complainant's hairs.

20 Q. Would hairs that you found like on a
21 bedspread or from a rape kit at random -- would
22 that be a representative sample of a person?

23 A. No, not if it was just one.

24 MR. SINGER: Pass the witness.

25

CROSS-EXAMINATION

BY MR. ANDERSON:

Q. Ms. Hilleman, I take it when you make your comparisons, when you're looking at hair samples to determine if they're similar or dissimilar, you use a microscope to do this.

A. Yes, I do.

Q. You've indicated that the -- the two hairs -- the unknown hairs which you were given on March 30th, 1987, and the pubic hairs, one coming from the bedspread, the other coming from the rape kit, were brought to you on March 30th, 1987, by apparently someone from the Houston Police Department. Correct?

A. They had been in the laboratory since they were submitted, but they were transferred to me on March 30th.

Q. All right. Now, had any tests or comparisons been made with those hairs prior to them coming to you on March 30th, 1987?

A. No.

Q. When you received those hair samples you also received some known hair samples from Mr. Saunders; is that correct?

A. That's correct.

1 Q. All right, and those known hair samples
2 that you received from Mr. Saunders were hair
3 samples which were gotten on March 27th, 1987; is
4 that correct?

5 A. Yes, I believe so.

6 Q. Were you given any hair samples which
7 were obtained from Mr. Saunders prior to March
8 27th, 1987?

9 A. No, I was not.

10 Q. You mentioned certain things which could
11 cause hair to be dissimilar when you make your
12 comparison. You mentioned in terms of the hair
13 samples that you had that one of the reasons the
14 hair could be dissimilar is because it's not the
15 person whose hair you're making the comparison of,
16 the known sample; is that correct?

17 A. That's one of the possibilities, yes.

18 Q. You also indicated that even if that
19 hair sample came from the person whose known hair
20 you had and it was dissimilar was because it was
21 someone else's hair that was intermingled with the
22 known sample that you had.

23 A. Yes. That's another possibility.

24 Q. The third example you gave was a change
25 in environment where I take it it would have some

1 metabolic influence that would cause the hair
2 sample to change or become dissimilar in some way.

3 A. Yes, that is the third possibility.

4 Q. And I take it you indicated a change of
5 diet and other circumstances -- I take it it would
6 have to be something chemical in nature to cause
7 the hair to become dissimilar.

8 A. Chemicals inside the body.

9 Q. Let's assume that on, say, January 14th,
10 1986, you receive an unknown hair sample that you
11 look at it and you make a determination that the --
12 unknown hair samples that you have is that of a
13 black person.

14 A. Uh-huh.

15 Q. And let's assume that, say, on the same
16 day, January 14th, 1986, you receive a known hair
17 sample from a person who has been described to you
18 as a black person. Let's assume you're the person
19 who takes that hair sample. Would the comparison
20 that you would make on those days regarding those
21 two hairs -- would it be I guess more likely to
22 determine if the hairs were similar if they were
23 done that close in time than, say, if you waited a
24 14-month period of time in order to compare the
25 two samples? Do you follow what I mean?

1 A. Are you asking if I found them to be
2 similar --

3 Q. Let's put it this way: Let's say in
4 comparing those two hair samples you made a
5 determination on that day regarding the two hair
6 samples that you had that the samples were
7 dissimilar. Okay? Are you with me so far?

8 A. Uh-huh.

9 Q. Would -- if you were called to render an
10 opinion as to why the hairs were dissimilar, would
11 it be more likely because they were not from the
12 same source or that perhaps it was a sample which
13 was intermingled with a known sample that you had?
14 More so than, say, a chemical change?

15 A. Definitely if the unknown hairs were
16 compared to known samples right after an offense
17 it would be -- and they were found to be
18 dissimilar it would be more likely that the hairs
19 did not come from the same source.

20 Q. Let's assume that the known hair sample
21 isn't obtained at the same time on the same date.
22 Let's assume that the hair sample is obtained
23 January 28th, 14 days later or 15 days later or
24 even 20 days later; and let's assume that you do
25 your same testing, and you make the comparison,

1 and your findings were that the hairs are
2 dissimilar. Again, would the conclusion that you
3 would reach would be, one, that the known hair
4 sample is not the same person as the unknown hair
5 sample more so than it being a chemical change?

6 A. 15 days later, yes, it would be more
7 likely they're not from the same source.

8 Q. In summary, if a sample is taken closer
9 to the time of, say, an occurrence would it be
10 easier for you to make a determination as to
11 whether or not the known sample is the same as the
12 unknown sample?

13 A. Definitely.

14 Q. The two unknown pubic hair samples that
15 you received, the one that came from the bedspread
16 and the other that came from the rape kit, was a
17 comparison made of those two samples?

18 A. To each other?

19 Q. To each other.

20 A. No. I do not compare unknown hairs to
21 each other.

22 Q. So we don't know if those two hair
23 samples which were obtained at approximately the
24 same time came from the same person, whether
25 they're similar or dissimilar, do we?

1 A. There's no way that I can really validly
2 say that they came from the same person.

3 Q. That's because you didn't compare them.

4 A. Well, even if I did compare them and
5 found them to be similar I still can't say that
6 they came from the same person.

7 Q. All right. Had you compared the two
8 pubic hairs and you found them to be similar you
9 could come in and say they were similar.

10 A. I could come in and say they were
11 similar, yes.

12 Q. And had you compared the two samples and
13 came in and said they were dissimilar, you could
14 say they were dissimilar.

15 A. That's correct.

16 MR. ANDERSON: I pass the witness.

17 REDIRECT EXAMINATION

18 BY MR. SINGER:

19 Q. Mr. Anderson just asked you about a time
20 delay in taking a sample, that might affect the
21 microscopic characteristics of a piece of hair, a
22 delay of time in taking a sample.

23 A. Yes.

24 Q. Do you know whether or not the defendant
25 in this case consented to a hair sample after he

1 was arrested?

2 A. I know from what one of the officers
3 told me, yes.

4 Q. That he did or did not?

5 A. He said he did not agree.

6 Q. Do the microscopic dissimilarities that
7 you observed mean that they came from different
8 people?

9 A. No. It just means that the hairs from
10 the bedspread and the rape kit were dissimilar to
11 the hair sample that I received.

12 Q. And like I talked to you about before,
13 if I took two hairs off my head right now is it
14 possible they could be dissimilar?

15 A. Yes, it is.

16 MR. SINGER: Pass the witness.

17 RECROSS-EXAMINATION

18 BY MR. ANDERSON:

19 Q. Do you know how the known samples of
20 Alva Saunders were ultimately obtained? Do you
21 know?

22 A. Not personally, no.

23 Q. Based on your experience, and I take it
24 you've done this several times before, are you
25 aware that the police, the D.A., can obtain a

1 court order in order to obtain hair samples from a
2 suspect?

3 A. Yes, I am familiar with the process.

4 Q. That's something the suspect himself
5 cannot object to.

6 A. That's correct.

7 MR. KELLY: I object to that, and if Mr.
8 Anderson would like to -- he's asking this witness
9 to speculate. I have the consent form here if he
10 would like to agree to offer it in evidence.

11 MR. ANDERSON: That's fine. Counsel
12 knows just as I know that hair samples just like
13 body fluids --

14 MR. KELLY: I object to argument in
15 front of the jury.

16 THE COURT: Okay. I'm going to overrule
17 your objection.

18 MR. ANDERSON: Thank you. I have no
19 further questions of this witness.

20 MR. SINGER: We got no further questions,
21 Judge.

22 THE COURT: May this witness be excused?

23 MR. ANDERSON: Yes, Your Honor.

24 THE COURT: Call your next witness.

25 MR. KELLY: The State would call Holly

1 Hammond.

2 HOLLY HAMMOND

3 was called as a witness by the State and, having
4 been duly sworn, testified as follows:

5 DIRECT EXAMINATION

6 BY MR. KELLY:

7 Q. Ms. Hammond, would you introduce
8 yourself to the ladies and gentlemen of the jury
9 please?

10 A. My name is Holly A. Hammond.

11 Q. How are you employed?

12 A. I'm employed by the City of Houston in
13 the crime laboratory.

14 Q. How long have you been so employed there?

15 A. Approximately two years.

16 Q. What sort of training did you have to go
17 through before you began work at the Houston
18 Police Department crime lab?

19 A. I have a bachelor's degree in chemistry
20 and a bachelor's degree in forensic science from
21 the Univeristy of New Haven in West Haven,
22 Connecticut. I've undergone extensive training in
23 the Houston crime lab, and I've attended
24 professional meetings and seminars dealing with
25 forensic science and surology.

1 Q. What sort of work do you do in the
2 Houston crime lab? You yourself.

3 A. At this time I'm working in the trace
4 evidence section which works with hairs, fibers,
5 distance determinations, glass, soil.

6 Q. What other types of areas have you
7 worked in?

8 A. Previous to this -- before the first of
9 February I worked in the surology section which
10 deals with the identification and blood grouping
11 of blood and other body fluids.

12 Q. Did you have an opportunity to make an
13 examination of a broom submitted to you under this
14 case number, and I'll show you for identification
15 purposes as State's Exhibit No. 6. Not the broom
16 itself. Did you have an opportunity to examine a
17 swab taken from the tip of the broom?

18 A. Okay. I myself did not examine either
19 the broom or the swab. It was examined by another
20 chemist in the lab.

21 Q. You're the custodian of those records,
22 are you not?

23 A. Yes, I am.

24 Q. Did that swab come back positive or
25 negative for anything on the end of the broom?

1 A. It was tested for the presence of semen,
2 but it was negative for the presence of semen.

3 Q. Did you yourself run any tests on a rape
4 kit taken from [REDACTED] under this cause
5 number?

6 A. Yes, I did.

7 Q. Specifically when a rape kit is brought
8 to you would you tell the ladies and gentlemen of
9 the jury what you do?

10 A. A rape kit consists of evidence that's
11 collected from the victim at the hospital. The
12 examinations that we do are on a smear and swabs
13 that are in the rape kit. The smear is a glass
14 slide on which a smear of the body fluids has been
15 made. The smear is made from the swabs which are
16 used to sample any secretions from the victim's
17 body. When we examine the kit we examine the
18 slide. We look at it under the microscope and
19 look for the presence of spermatazoa which are the
20 male sex cells which would indicate there was
21 semen present. From there we can take the swab.
22 We do chemical tests on that to determine if there
23 is semen on the swab and then can do tests to
24 determine blood groups of the person who donated
25 the semen.

1 Q. Let me interrupt you there, and I show
2 you what's been marked for identification purposes
3 as State's Exhibit 21-H and State's 21-G. Are
4 those the slides in this matter that you examined?

5 A. Yes, they are.

6 Q. And I'll show you the swabs in this case
7 that have been marked for identification purposes
8 as 21-E and 21-F. Are those the cotton tips that
9 were taken -- the swabs that were placed on the
10 slides?

11 A. Yes. They're the swabs that were in the
12 rape kit.

13 Q. What did your test of both the internal
14 and external smear show?

15 A. Okay. Both sets of smears were positive
16 for spermatazoa.

17 Q. What does that mean?

18 A. It means that there was semen present on
19 the swab that made that smear, and that is
20 evidence that there was sexual contact.

21 Q. Would it be evidence that there was
22 semen deposited in the internal -- on the inside
23 of the vagina?

24 A. Yes.

25 Q. Would that also be evidence to show

1 there was semen deposited on the outside or
2 external part of the vagina?

3 A. Yes, it would.

4 Q. Once you have that group -- what can you
5 tell by looking at that semen? What can you tell
6 about blood types?

7 A. We can examine semen to determine the
8 possible blood groups of the body fluids that are
9 on the swab.

10 Q. Did you do that in this case?

11 A. Yes, I did.

12 Q. What did your examination show?

13 A. I found the presence of "A," "B," and
14 "H" blood group substances on the internal swab.

15 Q. So three different blood groups, "A,"
16 "B" and "H"?

17 A. Yes, three different blood group
18 substances.

19 Q. After you take a sample from the inside
20 of the vagina and determine there are three types
21 of blood groups, "A," "B" and "H," can you take a
22 known sample from the victim, the complainant who
23 was raped, and determine what her blood type is?

24 A. Yes, we can.

25 Q. Did you do that in this case?

1 A. Yes, I did. I tested her blood and a
2 saliva sample.

3 Q. I show you what's been marked for
4 identification purposes as 21-B. Is that the
5 blood sample that you tested?

6 A. No, it isn't the blood sample I tested.

7 Q. What blood sample did you test?

8 A. We received another sample. Most
9 recently on March 27th we received a second sample.
10 That the sample I tested.

11 Q. Is it true once a victim gives a blood
12 sample it will dry up after a period of time and
13 become unuseable?

14 A. This sample is not dried. It's still
15 liquid but can no longer be used in a test.

16 Q. And [REDACTED] came into your office
17 approximately three weeks ago for another sample
18 because this one had dried up?

19 A. It could no longer be used.

20 Q. From that sample did you determine what
21 her blood type was?

22 A. Yes, I did.

23 Q. What is her blood type?

24 A. Type "B."

25 Q. Now, can you look at the known blood

1 type of Karen and determine what body fluids you
2 would normally expect to find in her vagina?

3 A. Well, the presence of blood group
4 substances in body fluids depends on another
5 genetic factor which is called secretor status.
6 You can either be a secretor or you can be a
7 non-secretor, and if you are a secretor that means
8 blood group substances corresponding to your ABO
9 blood group will be found in your body fluids
10 other than your blood. It will be found in your
11 saliva. It will be found in your semen if you're
12 a male and also in the vaginal fluids. We can
13 test the blood using a blood test and also test
14 the saliva sample to determine if a person is a
15 secretor or not. In this case I tested the saliva
16 sample and blood sample from [REDACTED] and
17 determined she was a secretor as well as having
18 type "B" blood. From that we would expect to find
19 in her vaginal -- from her vaginal material we
20 would find "B" and "H" blood group substances.
21 The blood group substance we found correspond to
22 the blood groups -- if you're type "A" you would
23 have "A" and "H" blood group substances. If
24 you're type "B" you would have "B" and "H." If
25 you have "O" you have only the "H" blood group

1 substance. The reason for finding both in the
2 other blood types is that the "H" substance is the
3 precursor substance, that is, the "A" and "B"
4 substances are made from the "H" substance.

5 Q. Let me interrupt you because obviously I
6 lost you about a paragraph ago. Okay. Now, what
7 I'm trying to get at is within [REDACTED] body --
8 would you tell the ladies and gentlemen of the
9 jury what type you found in her vagina? What type
10 blood?

11 A. What blood group substance we would
12 expect to find in her vaginal fluid?

13 Q. Okay. What you would expect to find.

14 A. She's a type "B" and a secretor. We
15 would expect to find "B" and "H" blood group
16 substance.

17 Q. That would be "B" and "H" only?

18 A. That's correct.

19 Q. That is because of her blood type?

20 A. Right.

21 Q. What did you in fact find?

22 A. In the internal vaginal swab we found
23 "A," "B," and "H" blood group substances.

24 Q. So what was the additional blood group
25 substance that you found in her vagina rather than

1 what you expected to find which should have been
2 there? What was the additional --

3 A. "A" blood group substance could not have
4 come from [REDACTED].

5 Q. Since it could not have come from [REDACTED],
6 the "A" would have come from someone else?

7 A. Yes, and it would have come from the
8 semen that was on the swab.

9 Q. Did you have an opportunity to test a
10 sample -- a known sample from Alva Saunders under
11 this case number?

12 A. Yes, I did.

13 Q. And I show you what's been marked for
14 identification purposes as State's Exhibit 22-A
15 and 22-B. Is that the blood and saliva sample?

16 A. Yes, they are.

17 Q. When you took his blood and saliva
18 sample did you determine whether or not he was a
19 secretor?

20 A. Yes, I did.

21 Q. And is the defendant a secretor?

22 A. Yes, he was found to be a secretor.

23 Q. What did that tell you when you found
24 out he was a secretor?

25 A. That I would expect to find blood group

1 substances corresponding to his blood type in his
2 semen.

3 Q. And what blood type would that be found
4 in his semen?

5 A. He was determined to be type "A."

6 Q. The additional blood type that [REDACTED] had
7 in her vaginal specimen that day you would not
8 expect her to have, what type was that?

9 A. That is type "A."

10 Q. Is that the same type that you would
11 expect to find in Alva Saunders' semen?

12 A. Yes, it is.

13 Q. Is he within the group of potential
14 semen donors that could have counted for the blood
15 grouping in [REDACTED] vagina?

16 A. Yes, he is.

17 MR. KELLY: Pass the witness, Judge.

18 CROSS-EXAMINATION

19 BY MR. ANDERSON:

20 Q. Ms. Hammond, in terms of the secretor
21 status that you determined in Ms. [REDACTED] and you
22 talked about in terms of expecting to find blood
23 group "B" and "H" in her body fluids, and I
24 believe you indicated that was because she was a
25 secretor.

1 A. Yes.

2 Q. In making the comparison and analysis,
3 that you did on the blood of Mr. Saunders you
4 found just "A"?

5 A. No. I would expect to find -- in his
6 semen we would expect to find "A" and "H" blood
7 group substances.

8 Q. Now, are you able to distinguish the
9 "H's" in the different blood groups?

10 A. You're saying if we detect "H" in a
11 sample can we say what part of that came from
12 which person?

13 Q. Whose "H" is it?

14 A. No, I cannot do that.

15 Q. How exact can blood typing get in terms
16 of determining whose blood it is?

17 A. With the ABO blood grouping it's not
18 exact. There are certain percentages of the
19 population that have each blood group.

20 Q. In terms of the portion of the
21 population, say, who has type "A" blood or who may
22 be secretors with the "H" factor included in there,
23 what percentage of the population would be in that
24 group?

25 A. The percentage of people -- of a black

1 population that has type "A" blood is
2 approximately 27 percent. Of those approximately
3 80 percent would be secretors.

4 Q. Of the black population?

5 A. Yes.

6 Q. 80 percent would be secretors?

7 A. Out of the entire population 80 percent
8 are secretors. 20 percent are non-secretors. 27
9 percent would be type "A," and 80 percent of that
10 would be secretors.

11 Q. Do you have any figures to show how many
12 people would --

13 A. It would depend on what population
14 you're talking about, but of any group of people
15 it would be 20 percent of that -- 27 percent of
16 that.

17 Q. And are we talking about the United
18 States, State of Texas, or the world in terms of
19 the population?

20 A. That the figures come from?

21 Q. Yes, ma'am.

22 A. I believe they come from the United
23 States population.

24 Q. There's no way to isolate blood grouping
25 to a particular person?

1 A. No, there isn't.

2 Q. And the blood grouping that you found in
3 the swabs that you compared, the "B," the "H," and
4 the "A" could come from anyone in terms of the
5 population.

6 A. Yes.

7 Q. So the comparisons you made you could no
8 more say really with any certainty that the blood
9 grouping of the "B" and "H" found in the swab, the
10 vaginal swab that you analyzed -- you couldn't say
11 for certain it came from Ms. [REDACTED], could you?

12 A. No.

13 Q. What assists you in making that
14 determination is the labelling that is found on
15 the package which you received. Correct?

16 A. No, not entirely. What would lead me to
17 believe that the "B" and "H" could come from her
18 is that she is a type "B" secretor and it came
19 from her body.

20 Q. And it could have come from someone else.

21 A. Yes, it could have.

22 Q. But the same thing applies in terms of
23 the "A" blood that you found. There's no way that
24 you can say that "A" blood came from that -- that
25 was found in the vaginal swab which was presented

1 to you in the rape kit came from Alva Saunders.

2 A. No.

3 Q. It could have come from anyone.

4 A. It could have come from any type "A"
5 secretor.

6 Q. Right. In the population. Thank you.

7 MR. ANDERSON: I have no further
8 questions.

9 MR. KELLY: No further questions.

10 THE COURT: You may step down, ma'am.

11 Call your next witness.

12 MR. KELLY: Officer Belk.

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SERGEANT JOHN W. BELK

was called as a witness by the State and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q. Officer, would you state your name for the ladies and gentlemen of the jury please?

A. John W. Belk, B-e-l-k.

Q. And how are you employed?

A. I'm a sergeant employed with the Houston Police Department.

Q. Sergeant, what division are you currently assigned to?

A. I'm assigned to the Homicide Division, Sex Crimes Unit.

Q. How long have you been a Houston police officer?

A. Approximately nine and a half years.

Q. What do your duties in the Homicide Division of the Sex Crimes Unit include?

A. Investigating sexual offenses such as aggravated sexual assault, sexual assault, which is better known as rape, and indecent exposures. Anything that has any type of sexual connotation to it we investigate it.