

1 about to give in the cause now on trial shall be the truth,  
2 the whole truth, and nothing but the truth, so help you God?

3 THE WITNESS: I do, sir.

4 REBECCA KATHLEEN RUSH

5 appeared as a witness in this matter, after having been first  
6 duly sworn, testified as follows:

7 DIRECT EXAMINATION

8 BY MR. FRIES:

9 Q. Could you state your name, and spell your last name  
10 for the Record?

11 A. Rebecca Kathleen Rush, R-U-S-H.

12 Q. And are you employed right now, Miss Rush?

13 A. I'm presently part-time employed at the City-County  
14 Health Department.

15 Q. What do you do for the City-County Health Department?

16 A. I'm a lab scientist, analyzing water.

17 Q. And prior to your working with the Water Department,  
18 City-County Health Department, were you employed at another  
19 agency?

20 A. I was employed with the Tulsa Police Department in the  
21 forensic laboratory.

22 Q. In what capacity were you employed with TPD in the  
23 forensic laboratory?

24 A. I was assigned to the surology department of the  
25 laboratory. I was assigned to analyze blood, body fluids, and

1 hair, in reference to offenses that occurred within the City  
2 of Tulsa.

3 Q. If you could, please, Miss Rush, could you give the  
4 Court and Jury a brief description of your educational  
5 background and experiences in this regard?

6 A. I have a bachelor of science degree in forensic  
7 science, and a minor in chemistry from California State  
8 University, in Sacramento. Upon my completion of that degree,  
9 I was employed by the Oklahoma State Bureau of Investigation  
10 in Oklahoma City for a year and a half, and assigned to the  
11 surology area; at which time, I received approximately six  
12 months of training under qualified experts. After that  
13 employment, I was then employed by the City of Tulsa until  
14 April 16, 1989.

15 Q. And what happened at that time? Why did you leave the  
16 Police Department?

17 A. I felt it was time to spend some more time with my  
18 children.

19 Q. You just recently had a baby?

20 A. Yes.

21 Q. So that's why you're working part-time with the Health  
22 Department?

23 A. Correct.

24 Q. Have you previously testified in these matters before,  
25 here in District Court?

1 A. Yes, I have.

2 Q. And have you previously been certified as an expert  
3 witness?

4 A. Yes, I have.

5 Q. While you were employed with the Tulsa Police  
6 Department, Miss Rush, did you have occasion to come into a  
7 case regarding Cyndi Gilbert and Arvin McGee?

8 A. Yes, I did.

9 Q. Can you tell the Court and Jury just exactly how your  
10 involvement with that case began?

11 A. Upon receipt of a sexual assault evidence kit, on  
12 October 30th, 1987, I determined what was called a rape  
13 screen, which is testing particular samples that were obtained  
14 from the victim, and preserving others for further testing.

15 Q. Do you have a report reflecting that information, Miss  
16 Rush?

17 A. Yes, I do.

18 Q. Do you mind if we take that, and we'll use that one as  
19 evidence, or do you have another one?

20 A. Yes, I do.

21 (STATE'S EXHIBIT NO. 13, marked for identification)

22 Q. All right. This document has been marked for  
23 identification purposes as State's Exhibit No. 13. Is that  
24 the preliminary screening you were talking about?

25 A. That is correct.

1 Q. Can you tell the Court and Jury just exactly what that  
2 is, what this preliminary screening does?

3 A. Initially, the sexual assault kits are checked out of  
4 the property room, and it is then -- information is obtained  
5 from the sexual assault investigator, whether a screening  
6 needs to be done or not, on the case. If we receive that it  
7 does need to be done, we will type the blood. We will  
8 determine the blood type of the victim in the ABO system. We  
9 will also determine if the victim is a secreter. And then, we  
10 will view these particular slides that were obtained from the  
11 victim, in the examination, to determine if there's any  
12 presence of spermatozoa. And along with that, we'll test the  
13 swabs that were obtained from the victim to determine if  
14 there's any seminal fluid present. Those particular tests are  
15 performed, and then the samples are either frozen and  
16 preserved for further testing upon samples that may be  
17 obtained from a suspect or a defendant.

18 Q. If you could, Miss Rush, you went through some things  
19 there that I don't know if everybody understands, the ABO  
20 system, spermatozoa, seminal fluids. Would you explain just  
21 exactly what each of those are and their relation in this  
22 case?

23 A. It is -- A blood sample is obtained from the victim,  
24 at the time of the examination in the hospital. The purpose  
25 for this is to determine what her blood type is. And the

1 particular blood type that we use as grouping is known as the  
2 ABO blood group system, where approximately forty percent of  
3 the population are A, forty-five percent of the population are  
4 O, nine percent of the population are B, and six percent are  
5 AB. Then we will test for the -- with the blood sample to  
6 determine if the person is a secreter. A secreter is somebody  
7 that you're able to find their blood type in other body  
8 fluids, other than blood. It's an antigen that's found in  
9 other fluids, such as saliva, seminal fluid, vaginal fluid,  
10 perspiration. This determination, sometimes, can be  
11 determined from the blood, to determine if this particular  
12 person secretes. Approximately, eighty percent of the United  
13 States population secrete their blood type in body fluids;  
14 whereas, the remaining twenty, it's undetected.

15 Q. Let me ask you, Miss Rush, because somebody is a  
16 secreter, or a non-secreter, what does that mean? That  
17 doesn't mean they're going to -- limbs are going to fall off  
18 if they're a secreter, or anything like that. Just exactly  
19 what medical significance does that have?

20 A. It will -- the significance in the forensic science  
21 laboratory and investigation is the fact that you can  
22 determine a person's blood type from their body fluids.

23 Q. Other than that, it really has no medical  
24 significance? It's just something that eight out of ten of us  
25 do, and the other two out of ten just don't do? It has no

1 other medical significance?

2 A. I don't know if I could testify if it has any other  
3 medical significance. I do know that it is hereditary. It  
4 never changes. But as far as the medical significance, that  
5 would be beyond my expertise.

6 Q. All right. You performed these tests on Cyndi  
7 Gilbert?

8 A. Yes.

9 Q. And what were the results of your testing?

10 A. It was determined that Cyndi Gilbert is blood type AB,  
11 and that, from her blood, it was determined it was -- it could  
12 not be determined if she was a secreter or not, so that was  
13 inconclusive.

14 Q. Did you test any other substances found from Cyndi  
15 Gilbert?

16 A. A saliva sample was tested from Cyndi Gilbert,  
17 obtained from the sexual assault kit, and it was determined  
18 that she's a non-secreter, which means that she -- we cannot  
19 detect any of her antigens in her body fluids.

20 Q. Okay. So for your initial screening, let's just focus  
21 on that now, was anything else done to determine whether or  
22 not Cyndi Gilbert was a secreter or not?

23 A. No. That was all.

24 Q. Were there any other tests run regarding just the  
25 initial screening?

1 A. It was determined, from the slides that were obtained  
2 from the cervical-mucosa area, the external genitalia, and the  
3 rectal area of the victim, that spermatozoa was present.  
4 Spermatozoa is the male reproductive cell found in seminal  
5 fluid.

6 Q. Is that what is normally referred to as male sperm?

7 A. That's correct.

8 Q. So that was found in Cyndi Gilbert?

9 A. Yes.

10 Q. Where exactly was that found?

11 A. In the cervical-mucosa, external genitalia, and the  
12 rectal area of the victim.

13 Q. All right. Were there any other tests run, in the  
14 initial screening?

15 Q. It was determined from the swabs, the swab of those  
16 particular areas of the body of the victim, that it was  
17 determined that acid phosphatase was present in the vaginal  
18 washing, as well as present in the external genitalia and the  
19 rectal swab. Acid phosphatase is an enzyme which is indicative  
20 of seminal fluid.

21 Q. And how -- Where is that found, seminal fluid and acid  
22 phosphatase? Can that be found in somebody's blood? Can it  
23 be found in any -- Where can that be found?

24 A. The particular test that is performed at the Tulsa  
25 Police Lab is ninety-nine percent specific for prostatic acid

1 phosphatase, meaning that this particular acid phosphatase,  
2 this particular enzyme found, is found in the prostate gland  
3 of the male.

4 Q. And how does it get from the prostate gland out into  
5 the open?

6 A. Seminal fluid is stored in the prostate gland; where  
7 the sperm is found in the testicles. At the time of  
8 excitement and ejaculation, the two will mix, and then that  
9 particular fluid will ejaculate.

10 Q. So, basically --

11 A. Will be secreted from the male.

12 Q. Okay. So the only time you'd find acid phosphatase,  
13 based upon your test, and ninety-nine percent of the time, is  
14 through some type of male ejaculation?

15 A. That is correct.

16 Q. It can't be found in women, naturally?

17 A. Correct.

18 Q. Any other tests that you ran during the initial  
19 screening, Miss Rush?

20 A. No.

21 Q. Did you have any further contact with this case?

22 A. Yes, I did.

23 Q. And can you tell the Court and Jury just exactly what  
24 that was?

25 A. On August 8th, 1988, I obtained the kit, retrieved the



1 kit again from the Police Department Property Room under  
2 Victor 2253, and tested those particular items, as well as  
3 body samples that were obtained from the Defendant, and  
4 compared those with those samples that were tested in the  
5 screening.

6 Q. Miss Rush, I'm going to show you what's been  
7 previously marked and identified as State's Exhibit No. 12,  
8 and can you tell the Court and Jury what that is, please?

9 A. This is the sexual assault investigation kit that is  
10 provided to the hospitals to retrieve body samples after  
11 sexual assault. This particular one is one from the patient  
12 of Cyndi Gilbert. I can identify this by my signature on the  
13 box.

14 Q. And when you obtained that from the property room, it  
15 was properly sealed and in proper condition?

16 A. Yes, it was.

17 Q. And when you went to retrieve it a second time, what  
18 test did you run on it then, Miss Rush?

19 A. I tested the particular samples, such as the swab and  
20 the vaginal fluid, for the presence of antigens that might be  
21 present. As I talked about before, secreters are determined  
22 to see if there were any antigens which correspond to a  
23 particular blood group that might be consistent with either  
24 the victim's or the suspect's.

25 Q. Were you able to find any of that consistency, Miss

1 Rush?

2 A. Yes, I did.

3 Q. Can you tell the Court and Jury just what you found?

4 A. It was determined that the Defendant, Arvin McGee, is  
5 blood group B. From his particular blood sample, a secreter  
6 status was inconclusive. Therefore, I tested his saliva. It  
7 was determined from his saliva that he secretes antigen B, and  
8 and antigen H, which is consistent with a secreter, a person  
9 whose blood type is B and is a secreter. It was determined  
10 earlier that the victim was blood group AB. From her saliva  
11 sample, no antigens were detected, which indicates she is a  
12 non-secreter, and therefore any antigens that may be  
13 determined from the body samples would not be consistent with  
14 her, but that of the doner of the seminal fluid.

15 Q. So she couldn't, if you found some secreting fluids or  
16 fluid that had something that enabled you determine whether  
17 they were a secreter or not, they could not have come from  
18 Cyndi Gilbert?

19 A. That is correct.

20 Q. They had to have come from the doner?

21 A. Yes.

22 Q. Continue, if you would, please, Miss Rush.

23 A. Upon determining the particular blood types and  
24 secreter status of the victim and the Defendant, the external  
25 genitilia swab and the rectal swab were tested for any

1 antigens that were present, and it was determined that antigen  
2 B and antigen H were detected in the external genitalia and  
3 rectal swab, which is consistent with the victim's blood type  
4 and her secreter status.

5 Q. Anything else that you tested, Miss Rush?

6 A. There were some hairs that were found in the pubic  
7 hair combing, which is retrieved from the victim at the time  
8 of the examination. Those hairs were determined to be  
9 consistent with the victim's. They were not foreign to her.

10 Q. No other hairs were found?

11 A. That is correct.

12 Q. If you could, Miss Rush, could you tell us, from  
13 examining the rape kit that you compared, where are all the  
14 places that acid phosphatase was found?

15 A. In the external genitalia and the rectal area.

16 Q. Was there also some found in the vaginal washings from  
17 the victim?

18 A. Yes, in the vaginal washing.

19 Q. Can you tell us all the places that spermatozoa was  
20 found in the victim.

21 A. Spermatozoa was found in the vaginal washing, in the  
22 external genitalia, and the rectal smear, and the  
23 cervical-mucosa smear.

24 Q. The test that you performed, regarding this case, Miss  
25 Rush, were they, as far as the Tulsa Police Department and

1 their lab were concerned, state of the art tests at that time,  
2 the most refined tests that the Tulsa Police Department could  
3 conduct?

4 A. At that time, any additional testing that may have  
5 been conducted would have not been possible, due to the time  
6 between the time that the body samples were obtained from the  
7 Defendant and the time that the samples were retrieved from  
8 the victim.

9 Q. So, at that time, you were conducting the best tests  
10 you could?

11 A. That's correct.

12 Q. We've heard a lot about some genetic testing and  
13 things like that, where, you know, DNA markers and things like  
14 that, where, based upon somebody's blood, you can determine  
15 beyond any doubt that that person's blood was there. Are you  
16 familiar with these tests?

17 A. Yes, I am.

18 Q. What kind of tests are they, Miss Rush?

19 A. This, I'm sure, is known as DNA typing of a particular  
20 blood or body samples.

21 Q. At the time these tests were conducted, did you have  
22 the capabilities to conduct such tests?

23 A. No, I did not. And, at that time, also, the Federal  
24 Bureau of Investigation Laboratory was, at that time, only  
25 under research for DNA testing in forensic cases. So,

1       therefore, there was no other lab that it could be sent to for  
2       this particular case.

3       Q.       So, at this time, when these -- when you conducted  
4       these tests, they were the most advanced forensic tests that  
5       could be conducted?

6       A.       In the Tulsa Police Department, as well as our  
7       resources that we have.

8       Q.       We've gone through all that now, Miss Rush. I guess,  
9       what everybody wants to hear is the bottom line. And you've  
10      talked about different percentages, people being B blood,  
11      secreters, and non-secreters. What exactly did your test  
12      results come up with, regarding the Defendant and the  
13      comparisons that were made with Cyndi Gilbert?

14      A.       My particular test does not identify the Defendant as  
15      the assailant. This particular test -- No test can do that,  
16      other than DNA. It only shows that the assailant of the  
17      victim was a person of blood type B, was a person within the  
18      eighty percent population, a person that was within the six  
19      percent population, United States' population, and that it is  
20      consistent with Arvin McGee's body samples.

21      Q.       So your testing is not an identifying test, but more  
22      an elimination test?

23      A.       That is correct. You can eliminate a person from  
24      these tests, but you can't identify them.

25      Q.       You can't identify them. So, and correct me if I'm

1 wrong, if you would, please, Miss Rush, Arvin McGee is a  
2 secreter?

3 A. That is correct.

4 Q. And they compile eighty percent of the general  
5 population?

6 A. That is correct.

7 Q. And, right off the bat, you could eliminate twenty  
8 percent of the population, but you still couldn't eliminate  
9 Arvin McGee?

10 A. Correct.

11 Q. And within that eighty percent, his blood type and  
12 secreter status said that he was nineteen percent of the  
13 population?

14 A. Well, six percent of the United States' population.  
15 If you want to break it down into racial characteristics, it  
16 would be nineteen percent of the black population.

17 Q. Okay. So it would be nineteen. And obviously the  
18 Defendant here in this case is black, so it would be nineteen  
19 percent of the black population?

20 A. That is correct.

21 Q. And Arvin McGee falls within that range?

22 A. Yes.

23 Q. And he can't be eliminated?

24 A. No.

25 Q. So, I guess, basically, what you're saying is you can

1 eliminate everybody except nineteen percent of that eighty  
2 percent?

3 A. That is correct.

4 Q. And yet, you can't eliminate Arvin McGee?

5 A. No, I cannot.

6 MR. FRIES: I have no further questions.

7 THE COURT: Cross-examination.

8 MS. JACKSON: Just briefly, Judge.

9 CROSS-EXAMINATION

10 BY MS. JACKSON:

11 Q. Miss Rush, I think that the substance of the  
12 testimony that you're giving is that, certainly, Arvin McGee  
13 falls into a category?

14 A. That is correct.

15 Q. But by your testimony, you do not mean to say that  
16 Arvin McGee is the only person in the world who would have had  
17 the antigens that matched those you found in the victim?

18 A. No.

19 Q. That's correct?

20 A. No, I'm not trying to say that.

21 Q. Okay. And you're telling me that the hair samples  
22 that you studied, you could not link any hair samples from  
23 Arvin McGee to the victim?

24 A. Correct.

25 Q. And the only way that you were able to tell that Arvin

1 McGee was a secreter was through his saliva, and not blood?

2 A. Yes. His blood was determined to be inconclusive.

3 That can be common.

4 Q. By your testimony that Arvin McGee falls within eighty  
5 percent of a population that would be secreters, for you to  
6 try to identify antigens; is that correct?

7 A. That's correct.

8 Q. Okay. And then, when you break that down by race  
9 category, that leaves him within a nineteen percent subsection  
10 of that group?

11 A. That's correct.

12 Q. Which means that the possibility exists out there that  
13 there's someone else who could have the same antigens, be a  
14 saliva secreter, and match up with the antigens found in the  
15 victim?

16 A. Yes.

17 MS. JACKSON: I have no further questions, Judge.

18 MR. FRIES: I have no further questions, Your Honor.  
19 I just wish to introduce Miss Rush's report into evidence.

20 MS. JACKSON: May I see the report? No objections,  
21 Judge.

22 THE COURT: 13 is admitted without objection.

23 (STATE'S EXHIBIT NO. 13, offered and admitted into  
24 evidence)

25 THE COURT: Thank you. You may be excused.



1 I think the Jury indicated they didn't understand the  
2 stipulations that we had a minute ago; is that correct? All  
3 right. I'll ask the District Attorney to state the  
4 stipulations again. You can consider this as though this  
5 person was here, and that's what they testified to. It's just  
6 done for expediency, and there is no dispute about it.

7 STIPULATIONS

8 MR. FRIES: That the samples that Miss Rush obtained  
9 and compared to the found samples inside Cyndi Gilbert were  
10 taken from Arvin McGee, and they were taken by a qualified  
11 doctor, and stored properly, and put into the police property  
12 room properly. The samples, the unknowns, that were found  
13 inside Cyndi Gilbert were compared to Arvin McGee's samples.

14 And the other stipulation was that Bob Yerton, who is an  
15 expert in the field of fingerprinting, compared the  
16 fingerprints that were found by Officer Uhles and Morrison,  
17 and they were found to be negative with that of the Defendant  
18 Arvin McGee.

19 THE COURT: Does everybody understand that? All  
20 right. Very well. Thank you.

21 You may call your next witness.

22 MR. FRIES: We call Judy Crane to the stand, Your  
23 Honor.

24 THE COURT: Judy Crane, please. Place your left  
25 hand on the Bible, and raise your right hand. Do you solemnly