

1 objection to that?

2 MR. TALLEY: I have seen that  
3 and it appears to be the same one as the other  
4 exhibit. I have no objection.

5 THE COURT: Do you want to mark  
6 that, please. I believe that will be Exhibit 7.

7  
8 (Original composite drawing  
9 was marked as Exhibit No. 7  
10 in evidence.)

11  
12 MS. O'BRIEN: I have nothing  
13 further.

14 MR. TALLEY: I have no questions  
15 of this witness.

16 THE COURT: Thank you, sir.

17 MS. O'BRIEN: David Brody,  
18 please.

19  
20 CHEMISTS TESTIMONY TO TESTINGS  
DAVID L. BRODY, Sworn

21 DIRECT EXAMINATION

22 (by Ms. O'Brien)

23 Q. Sir, please state your full name.

24 Q. My name is David, middle initial L., last name

1 Brody, spelled B-R-O-D-Y.

2 Q. What's your occupation, Mr. Brody?

3 A. I'm a senior criminalist with the Boston police  
4 crime laboratory.

5 Q. Will you describe what a criminalist is?

6 A. My duty is to either receive or collect various  
7 types of physical evidence, examine the  
8 evidence, perform any necessary tests, evaluate  
9 the results, and then to present my findings in  
10 court.

11 Q. How long have you been employed in that  
12 capacity?

13 A. Twenty-five years.

14 Q. And over the course of that twenty-five years,  
15 how frequently have you testified in court?

16 A. Oh, at least a thousand times.

17 Q. Can you give an estimate of the total number of  
18 cases that you've investigated or worked on?

19 A. Well, we're doing approximately five hundred  
20 cases a year now. Multiple that by twenty-five  
21 and we're talking several thousand cases.

22 Q. On August 28, 1989, were some items submitted to  
23 you by Detective Hill of the sexual assault  
24 unit?

1 A. Yes.

2 Q. Was there some clothing among those items?

3 A. Yes. There were the victim's clothing and some  
4 bedding.

5 Q. And was there also what's referred to as a rape  
6 kit among those items?

7 A. That was submitted on August 31, three days  
8 later, yes.

9 Q. Will you describe what a rape kit is in general  
10 terms?

11 A. A rape kit is a container that's prepared at the  
12 hospital that usually contains smear slides,  
13 microscope smear slides, be it vaginal, oral,  
14 rectal, genital. In addition to the smear  
15 slides, they also include swabs, again, oral,  
16 rectal, genital, wherever the orifice might be.

17 In addition to that, in some  
18 cases a sample of the victim's blood is  
19 submitted, perhaps sometimes saliva. And hair  
20 samples, pubic hair combings and/or head hair  
21 combings along with pubic or head hair standards  
22 is usually submitted.

23 Q. Did you make a listing in this particular case  
24 of the various items that you examined?

1 A. Yes. There were several large, yellowish stains  
2 which were tested, and semen and B and H blood  
3 group substances were identified in the stains.

4 Q. Now, in referring to blood group substances, can  
5 you describe in general terms what you mean by  
6 that?

7 A. Yes. An individual is a secretor of which  
8 eighty-five percent of the population are  
9 secretors. They will secrete their blood group  
10 substance, meaning their blood type, in all of  
11 their body fluids which would include semen,  
12 saliva, lacrimal fluid, tears, perspiration, and  
13 even vaginal secretions. A secretor will  
14 secrete his or her blood type in the form of  
15 blood group substances.

16 Q. What are the various substances that are  
17 secreted called? How are labelled or how are  
18 they referred to?

19 Q. Well, it depends on what substance you're  
20 dealing with. It could be, as I said, semen. It  
21 could be a vaginal secretion. It could be  
22 saliva, tears, perspiration. Is that the  
23 question you asked?

24 Q. Perhaps I should be more specific. How many

1 different blood types are there?

2 A. If we're talking about blood type, we try and  
3 identify four blood types: either A, B, AB, or  
4 O. A person who has, for example, a B blood  
5 group substance, that would be consistent with  
6 coming from a Group B individual. A and B would  
7 be AB individual. A blood group substance would  
8 come from an A individual, and H blood group  
9 substance would come from an O individual.

10 Q. So would it be fair to say that the H blood  
11 group substance only would be expected to be  
12 found in the blood of an O blood group secretor?

13 A. If you find H blood group substance only, it's  
14 consistent of having come from a Group O  
15 individual. But everybody, every blood type,  
16 can secrete some H. H is present in all of the  
17 blood types. It's like a precursor. H is the  
18 beginning of A and B and so on.

19 So H by itself would indicate a  
20 Group O individual. H in conjunction with  
21 another blood group substance such as A or B  
22 could indicate an A or a combination of A and O.

23 Q. With the rape kit, in this particular case did  
24 you receive a sample of the victim's blood?

1 A. Yes.

2 Q. Did you make a determination as to her blood  
3 type?

4 A. Yes, I did. The victim's --

5 Q. Go ahead.

6 A. The tests showed the victim to be a Group O  
7 secretor.

8 Q. Did you later receive a sample of the blood of  
9 the defendant in this case?

10 A. Yes, I did. On October 31, 1990, a sample of  
11 blood and saliva was received.

12 Q. Did you make a determination as to his blood  
13 type?

14 A. Yes, I did.

15 Q. What was that?

16 A. The test on his blood showed him to be a Group O  
17 secretor. And we also tested for an enzyme  
18 called PGM. And his blood was a PGM-1.

19 Q. Referring only for right now to the blood group  
20 substances, in light of the fact that there were  
21 both B and H blood group substances found on the  
22 sheet that you examined and both the defendant  
23 and the victim were found to be O secretors,  
24 what would be the significance of that?

1 A. Well, neither one would have secreted the B  
2 blood group substance because they were both O.  
3 The H portion of that, the O portion, could have  
4 come from either a semen portion of the stain or  
5 vaginal secretions. We cannot distinguish from  
6 which fluid the actual O came from.

7 Q. Regarding the other items in the rape kit, was  
8 any other semen identified?

9 A. Semen was identified, yes, on the swabs. There  
10 were six swabs submitted. But first there were  
11 four microscopic smear slides, and they were  
12 examined microscopically. And on both the  
13 vaginal smear slides, sperm was identified,  
14 which obviously indicates semen. This was on  
15 the microscope slides.

16 In addition, there were six swabs  
17 submitted: two oral, two vaginal, two genital.

18 Semen and H blood group substance  
19 was identified on both of the vaginal and both  
20 of the genital swabs. Additionally, sperm was  
21 microscopically observed on one of the two  
22 genital swabs.

23 Q. Was the semen that was discovered on the vaginal  
24 and genital swabs tested to determine what blood

1 group substances might be in them?

2 A. Well, the swab itself was tested and the H blood  
3 group substance was identified. Again, we can't  
4 determine if that came from the vaginal  
5 secretion or the semen itself.

6 Q. So what would be the significance of that  
7 finding in light of the fact that both the  
8 defendant and the victim are Group O secretors?

9 A. It does not eliminate the donor of the semen.  
10 That would have to have been in a Group O  
11 individual in order to eliminate the victim's  
12 vaginal secretions.

13 Again, all this shows that H or  
14 the O blood type was present in that stain,  
15 which could be all semen or a combination of  
16 semen and vaginal secretions.

17 Q. Now, with regard to the sheet, you've stated  
18 that the finding of the B blood group substances  
19 would in fact exclude this defendant as a donor.  
20 Are there any other combinations of blood group  
21 substances which would exclude the defendant as  
22 a donor, if they had been found.

23 A. I didn't find any. But any blood group  
24 substance other than O could not have been

1 deposited by a Group O individual.

2 Q. Did you mean to say H blood group substance, any  
3 blood group substance other than H?

4 A. The H blood group substance that I found had to  
5 be deposited by a Group O individual, a Group O  
6 secretor.

7 Q. Can you give us an idea of the percentages in  
8 the population of the different blood types,  
9 taking first Group O?

10 A. Approximately forty-five percent of the  
11 population are Group O individuals.

12 Q. And what proportion of the population would be  
13 Type A?

14 A. Approximately forty percent would be Type A.

15 Q. And how about Type B?

16 A. Nine percent would be Type B, and the remaining  
17 six percent would be Type AB.

18 Q. Other than the testing for blood group  
19 substances, did you perform any other testing on  
20 the swabs and sheet?

21 A. Yes. Well, not the swab, but the sheet -- an  
22 attempt to identify PGM on the sheet was  
23 performed, and no PGM was detected on the sheet.

24 Both blood samples, both the

1 victim's and the defendant's blood samples were  
2 also tested for PGM. I previously said that Mr.  
3 Miller's blood contained PGM-1, and the victim's  
4 blood was a PGM-2-1.

5 However, no PGM was detected on  
6 the stain in the sheet. That could be due to  
7 dilution or age when it was tested and so on and  
8 so forth. There are different ways. PGM does  
9 not last as long as the blood group substance.

10 Q. Was PGM testing performed on any other items  
11 other than the sheet?

12 A. No, other than the sheet and the blood, the  
13 actual whole blood of the two individuals.

14 Q. What is the significance of the fact -- can you  
15 draw any significance from the PGM types of the  
16 defendant and the victim given that there was no  
17 PGM found on the sheet?

18 A. No, other than they had different PGM's, but it  
19 was of no significance because we couldn't  
20 detect which PGM was in the stain on the sheet.

21 MS. O'BRIEN: Nothing further.

22 THE COURT: Mr. Talley?

23 MR. TALLEY: Yes, Your Honor.

24 Just a few questions.

CROSS EXAMINATION

1

(by Mr. Talley)

2

3 Q. Doctor, it's fair to say that --

4 A. I'm not a doctor.

5 Q. I'm sorry.

6

Mr. Brody, it's fair to say that  
of all the people in this room, approximately  
half of the people in this room would be Blood  
Type O?

9

10 A. Yes.

11 Q. And it's also fair to say of those numbers of  
12 people that are Blood Type O, approximately  
13 seventy-five to eighty-five percent of them  
14 would be secretors?

15 A. That's correct.

16 Q. So if your blood is Type O, the chances are  
17 seventy-five to eighty percent that you're going  
18 to be a secretor?

19 A. Correct.

20 Q. And the bottom line is that with all the testing  
21 that you did, you couldn't say conclusively  
22 whether the sperm that you tested came from this  
23 man, Neil Miller, could you?

24 A. I could not.

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MR. TALLEY: I have no further questions.

MS. O'BRIEN: Nothing further of this witness.

THE COURT: Thank you.

MS. O'BRIEN: Your Honor, may I be heard at sidebar?

SIDEBAR CONFERENCE

MS. O'BRIEN: Your Honor, there are one and possibly two witnesses remaining in this case. One is Detective Waggett who was notified to be here. I'm told that he has been reached, but he was unable to be here today but would be able to be here in the morning.

The additional witness that I would be asking to call possibly would be Detective Ingersoll.

THE COURT: So what am I supposed to do, adjourn the session at three o'clock?

MS. O'BRIEN: Your Honor, I had asked the detective to be here. There's very little I can do. I made a concerted effort to