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SUPREME COURT OF THE STATE OF CALIFORNIA

THE PEOPLE OF THE STATE OF CALIFORNIA, Plaintiff-Respondent, vs. KEVIN COOPER, Defendant-Appellant.	CR 72787 Supreme Court No. Crim 24552

APPEAL FROM THE SUPERIOR COURT OF SAN DIEGO COUNTY

HONORABLE RICHARD C. GARNER, JUDGE PRESIDING

REPORTERS' TRANSCRIPT ON APPEAL

APPEARANCES:

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VOLUME 71 of __ volumes.
Pages 6438 to 6513, incl.

JILL D. MC KIMMEY, C.S.R., C-2314
and
BRIAN V. RATEKIN, C.S.R., C-3715
Official Reporters

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN BERNARDINO

THE PEOPLE OF THE STATE OF CALIFORNIA, Plaintiff,	
vs.	NO. OCR-9319
KEVIN COOPER,	VOLUME 61
Defendant.	Pgs. 6438 thru 6513

REPORTERS' DAILY TRANSCRIPT

BEFORE HONORABLE RICHARD C. GARNER, JUDGE

DEPARTMENT 3 - ONTARIO, CALIFORNIA

Monday, August 13, 1984

APPEARANCES:

For the People: DENNIS KOTTMEIER
District Attorney

DENNIS KOTTMEIER
District Attorney
By: JOHN P. KOCHIS
Deputy District Attorney

For the Defendant: DAVID McKENNA
Public Defender
By: DAVID NEGUS
Deputy Public Defender

Reported by: JILL D. McKIMMEY
Official Reporter
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Official Reporter
C.S.R. No. 3715

Volume 61
Monday, August 13, 1984
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I N D E X

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ONTARIO, CALIFORNIA; MONDAY, AUGUST 13, 1984; 10:10 A.M.

DEPARTMENT NO. 3 HON. RICHARD C. GARNER, JUDGE

APPEARANCES:

The defendant with his Counsel, DAVID NEGUS, Deputy Public Defender of San Bernardino County; DENNIS KOTTMEIER, District Attorney of San Bernardino County, JOHN P. KOCHIS, Deputy District Attorney of San Bernardino County representing the People of the State of California.

(Jill D. McKimmey, C.S.R., Official Reporter, C-2314, Brian Ratekin, C.S.R., Official Reporter, C-3715)

THE COURT: Defendant and all counsel are present in the case of People versus Kevin Cooper.

How do you want to proceed?

MR. KOCHIS: Well, Your Honor, before we start with Mr. Gregonis, I believe Mr. Negus wants to address you on two issues that are not related to serology, and the reason he wishes to address those issues at this time is so he doesn't forget about them.

THE COURT: Okay.

MR. NEGUS: Mr. Forbush and I looked at Department 30 last Friday.

THE COURT: Oh, did you?

MR. NEGUS: There are 36 seats in the audience, and 15 in the jury box, total of 51. It's -- it's a fairly small courtroom, considerably smaller than this particular courtroom, so I don't think there's any way that you're going to get 60 people into that courtroom as far as --

THE COURT: I'm stuck with that courtroom. I can't avoid the courtroom, so we may have to change our logistics then.

MR. NEGUS: That's why I wanted to bring it to your attention, because I know you were planning on getting 60 people in there, and it's a small courtroom, and they don't -- there's not room for much more than those 36 people plus whatever you put in the box.

THE COURT: Well, the 15 would become 16, so it would make 52 people have seats. We can't put them inside the railing, I don't think, in this case. I may be able to put another row of seats. We'd only need another eight more in front of a jury box.

MR. NEGUS: You're not going to be able to do it.

THE COURT: We're going to start. We'd throw them out in a hurry.

MR. NEGUS: You're not -- well, I'm sure that whoever's in charge of the security would not be very happy. What you've got is you've got a counsel table, and the lead prosecutor is going to be sitting almost in the lap of the --

THE COURT: Mr. Negus, I'll have to take another look

at it, but I only have to squeeze in another eight to do it, another row of chairs along the aisles or something like that. Four on each side wouldn't be impossible. I have to look at it again to figure it out.

MR. NEGUS: I'm just warning you --

THE COURT: They can stand, if nothing else, for a short time.

MR. NEGUS: I'm just warning you. I think you're going to have -- it's nothing to me, but I'm just telling you I think if you want to get 60 people in there, you're going to have a real problem, so you should perhaps check out the logistics because it's not going to work.

THE COURT: Okay. Well, I'll do that. I'm going to take the clerk and the reporter and perhaps the bailiff to San Diego probably the -- I think the 30th of August for various things that must be done, the transfer of exhibits, for instance; that all has to be receipted for. The report has -- indicates that they can help a lot by giving glossary of terms and things such as that with the reporter, and I'll take a look at it at that time.

I also will talk to the jury commissioner as far as any changes in instructions from what I've given them.

MR. NEGUS: There are a few exhibits that -- we'll have to identify them -- that we'd like to keep here for the September hearings on --

THE COURT: Certainly. Let us know that.

MR. NEGUS: The other thing is that -- I just wanted to remind you, and Mr. Kochis reminded me that -- that there -- that we're requesting dailies all the way through, so that they should have a reporter there to set up for that.

THE COURT: Yes. I -- I had figured that you would. I just had a hesitation as far as voir dire, but I imagine you want it there too.

MR. NEGUS: Yes. The reason for that is I have not hired one of those jury experts to help me.

THE COURT: I'm pleased to hear that. I really am, because I don't -- I don't particularly like the idea of having those people. I think you know more than most of those psychologists.

MR. NEGUS: That's my mistaken belief, too.

THE COURT: All right. Well, I fully intend to do that, and my initial word down there when I was there before indicated that we would have a daily. We're going to get their number one reporter, is a man about 35. He's going to be the overseer, so to speak, of the reporters' jobs. He's been there apparently quite a while, seems to be a very competent individual, just my brief talk with him.

Another point, or is that it?

MR. NEGUS: That was it.

THE COURT: Okay. Well, I'll certainly take that into consideration, and we can scale it back quickly if we have to, and I won't hesitate to do so if we can't conveniently

get 60 people in the courtroom.

MR. NEGUS: It occurred to me that we were planning on taking the one afternoon off in doing it at 60 a crack. You might want to do it at 50 a crack and then just -- work that afternoon. It wouldn't take any additional time.

THE COURT: Possibly. All right. Next?

MR. KOCHIS: Dan Gregonis.

THE COURT: I've heard of him.

Mr. Gregonis, why don't we swear him again. He comes about every two or three weeks, it seems.

D A N I E L G R E G O N I S, called as a witness by the People, was examined and testified as follows:

THE CLERK: You do solemnly swear the testimony you are about to give in this action now pending before this court shall be the truth, the whole truth, and nothing but the truth, so help you God?

THE WITNESS: I do.

THE CLERK: Please be seated.

Please state your name and spell it for the record.

THE WITNESS: Daniel J. Gregonis, G-r-e-g-o-n-i-s.

MR. KOCHIS: Your Honor, I believe both Mr. Negus and I would stipulate that the Court could consider the testimony adduced at the first portion of the Kelly-Frye hearing and the testimony adduced at the Hitch hearing in considering its ruling in this particular motion.

MR. NEGUS: Yes. So stipulated.

THE COURT: Accepted.

DIRECT EXAMINATION

BY MR. KOCHIS:

Q. Mr. Gregonis, the procedure that you used to conduct your electrophoretic analysis of the bloodstains in the whole blood in this case, was that system designed by a particular person?

A. The majority of it, yes.

Q. Did you in fact use a multisystem that was designed by Mr. Brian Wraxall?

A. Yes, I did.

Q. And does he set forth any proposed system under which you are to employ certain techniques when you run his system?

A. Yes, he does.

Q. And have those techniques and methodologies been reduced to writing?

A. Yes, they have.

Q. Directing your attention to two exhibits, the first of which has been marked for identification as Exhibit M-20 and the second of which has been marked for identification in this proceeding as M-21, do you recognize either of those exhibits?

A. Yes, I do.

Q. The first exhibit, the M-20 exhibit, what is that exhibit?
A. M-20 is a summary, if you will, of M-21 that I prepared approximately two or three years ago for serology study group meeting of California Association of Criminalists.
Q. The M-21, is that a procedural -- a procedure manual that is put out by Mr. Wraxall himself?
A. Yes, it is.
Q. And does that set out in some written outline form the methodology that you are to use to correctly employ his multisystem?
A. Yes, it does.
Q. And then is M-20 a synopsis that you have reduced to writing from M-21?
A. Except for Group III, yes, it is.
Q. And the Group III in this particular case, for example, on A-41 was done in the presence of Mr. Blake?
A. Yes, sir, it was.
Q. The methodology that's set out in M-20, is that the methodology that you employed in this particular case when you analyzed the various bloodstains in whole bloods?
A. With some modifications, yes.
Q. Do the modifications appear on the exhibits themselves?
A. No, they do not.
Q. The procedures that Mr. Wraxall sets out in M-21, are those procedures recognized in the scientific community as the proper scientific procedures to use in conducting

electrophoretic runs?

A. Yes, they are.

Q. The procedures that are typed on M-20, are those likewise procedures which are accepted in the scientific community?

A. Basically. The only one that I would say is not really use at this time is doing the carbonic anhydrase Group I.

(No omissions.)

Q You did not test for the CA II on your Group I, did you?
A That is correct, yes.
Q Now, in this particular case, starting with the Group I test, the test in which you used bloodstains to look for PGM and EsD, can you outline briefly the steps that you took?
A Yes, I can. The first thing that you must do is prepare the gel. That is done by measuring out a buffer at a standard pH of 7.4. And then you measure out a dry chemical called agarose. You dissolve the agarose into the buffer by heating. You then take a glass plate, and after the -- the agarose buffer mixture is dissolved and ready to go, you pour the liquid onto the glass plate and level it with a piece of plastic, essentially, is what it is. It's got some angles on it that help you to level it easier.

You then let that set up or gel, and it turns into a gelatinous type material. Then you're ready to put your samples on.

In Group I, the samples are -- you cut sample slots at approximately 3 centimeters and then place your samples on with a reducing agent, and you actually place them in the gel. After that is done, I'll let the -- I'll place the plate with the gel onto a cooling platen. It's a piece of aluminum, essentially, with cold water circulating underneath it to cool the gel down. Place

that on there for approximately ten minutes to cool the gel and let the stain get in the solution of the reducing agent.

I then apply the voltage across the gel, letting the proteins and enzymes separate for, in this case, three hours at 300 volts and then take the plate off for development.

Q. You read the EsD first?

A. Yes, I do.

Q. And how do you stain for that?

A. Esterase D is stained for a what's called methylumbelliferyl acetate. And it is placed on a -- in a buffer and is placed on a piece of filter paper the width of the gel and approximately 10 centimeters, 10 centimeters high. And it's placed from the origin towards the top of the plate, or, the anode, and left there for approximately 10 minutes at room temperature.

Q. After it remains on the plate for 10 minutes, what do you do with it?

A. After that, I'll take it into the darkroom and read it under ultraviolet light.

Q. Then do you remove the filter paper?

A. Well, the filter paper I'll -- I'll look at it, I'll look at the gel with the filter paper and without the filter paper, sometimes. Well, most of the time the readings are done without the filter -- filter paper. It's

actually on the gel itself.

Q. After you read for EsD, what step do you take next to read for the PGM?

A. After the esterase D is read for, I'll take the PGM reaction mixture and pour that into a solution of agarose at approximately 60 degrees Celsius and then pour that onto the plate in a -- a plastic mold that I placed on the plate itself,and then let that solidify and stick that in an oven at approximately 37 degrees Celsius.

Q. How long do you leave it in the oven?

A. The first reading that I do is, approximately, after 10 to 15 minutes, make sure that there is no overdevelopment of one of the stains, say, from bacteria or something like that. I'll then let it stay in the oven, if there's no problem with that, for approximately an hour, and even longer.

Q. And then do you eventually do a second reading?

A. Yes, I do.

Q. And then are those the only two enzymes that you read off of that particular plate?

A. Yes, they are.

Q. The procedure that you briefly just outlined, is that the procedure that Mr. Wraxall recommends you follow when you use his multisystem?

A. Yes, it is.

Q. And is that procedure accepted in the scientific

community within the field of serologists in conducting electrophoretic runs for EsD and PGM?

A. Yes, it is.

Q. And does Exhibit M-21 contain the outline of the various chemicals that you use in conducting your Group I?

A. Yes, it is.

Q. And does it contain a brief outline of the steps that you actually employ in conducting the Group I run?

A. Yes, it is.

Q. The Group II run, how do you prepare the plate for that particular run?

A. The Group II run is done much like the I except you are using starch. You first dissolve the starch, and then one difference is that you must evacuate or degas the starch. So you actually put it on a vacuum when it's hot and suck all the -- all the gases out of the liquid, or, the majority of them, and then pour it on the plate of -- and level it.

Q. Which of the three enzymes, the EAP, the ADA and the AK do you read for first?

A. EAP.

Q. How do you stain the plate to read for EAP?

A. The EAP, again, is stained with a filter paper overlay and it's stained -- the filter paper overlay is approximately the -- the width of the gel and 13 centimeters high. And it is placed from the cathodic, or, the bottom

portion of the gel, if you will, towards the anode, or, the top end of the gel.

Q. How long do you leave the overlay on the Group II plate to read for the EAP?

A. I'll first read that after 20 minutes. If it's okay after -- I'll make the reading after 20 minutes and then usually stick it in the oven for another 10, read it again, and then photograph it, and then go on to the other enzymes.

Q. Do you do your last reading on the plate for EAP with the overlay off the gel itself?

A. Yes, I do.

Q. After you read for EAP, which enzyme do you read for next?

A. Well, both the ADA and the AK are developed at approximately the same time. Due to the nature of the enzyme, the AK will come up first. And I usually look at that after I put the overlay on after approximately 10 to 15 minutes.

Q. What type of overlay do you put on the plate to read for the ADA and the AK?

A. It's an agarose type overlay, again.

Q. And is the preparation for that overlay similar to the preparation for the PGM overlay on the Group I?

A. Yes, it is.

Q. Do you read essentially the ADA and the AKA from different portions of the same plate?

A. Yes, I do.
Q. After you prepare the overlay that allows you to read for those two enzymes, what do you do with it?
A. Okay. After I have prepared that, put in on the plate, I'll stick it in the oven in a moisture chamber at 37 degrees Celsius.
Q. For how long?
A. Again, I'll read the AK's after 10 to 15 minutes. And then the ADA's, I'll usually let those go for an hour, an hour and a half, somewhere in there.
Q. And those are the only three enzymes you would read off the second plate as you were -- that you would prepare?
A. At the time that this work was done, yes.
Q. The procedure that you have just outlined, is that the procedure that you followed in conducting the Group II runs on the bloodstains and the whole blood in this particular case?
A. Yes, it is.
Q. And are those the procedures and methods that are outlined in Mr. Wraxall's book?
A. Yes, they are.
Q. Are those procedures and outlines accepted within the scientific community?
A. Yes, they are.
Q. Turning for a moment to the Group IV system, how do you prepare the plate to test for the peptidase A and the

carbonic anhydrase II?

A. Okay. The plate is prepared much like the Group I only with a different agarose and a different buffer. And then the place where the samples are actually put are in a different area.

Q. How do you stain for that particular plate?

A. The staining for the carbonic anhydrase is done with a -- a filter paper overlay for the peptidase A. It's done with an agarose overlay.

Q. Which enzyme do you read first?

A. Okay. Basically I'll -- I'll read the carbonic anhydrase first and then look at the peptidase A afterwards.

Q. In terms of procedure, is the paper overlay that you use for the carbonic anhydrase similar to the overlay that you use, for example, for the EsD and the PGM? I mean, the EsD and the EAP.

A. Yes, it is.

Q. And how long do you leave the paper overlay on the Group IV plate before you remove it to do your final CA II reading?

A. For 20 minutes.

Q. Then do you prepare a second gel that allows you to read for the peptidase A?

A. Yes. That's prepared at about the same time as carbonic anhydrase. They're put on at approximately the same time. And then the peptidase A is just incubated for a longer

period of time.

Q. How much longer?

A. Up to two hours longer.

Q. Are those the only two enzymes that, in this case, at that time you were reading off the Group IV plate?

A. Yes, they are.

Q. And the steps that you have just outlined for the Group IV reading, are those steps that were outlined by Mr. Wraxall?

A. Yes, they are.

Q. And are -- are they accepted as proper scientific techniques to employ as to the Group IV readings for serology?

A. Yes, they are.

Q. And does, for example, M-20 set out in outline form the type of chemicals and the steps you follow to do the Group II runs, the EAP, the ADA and the AK?

A. Yes, it does.

Q. Does M-20 contain the steps for the Group IV?

A. Yes, it does.

(No omissions.)

Q. And again those are procedures you derived from Mr. Wraxall?
A. Yes, they are.
Q. What technique do you use to do the Group III system runs for the group specific component and the transferrin?
A. That is essentially the same -- well, it's also derived from Mr. Wraxall.
Q. And do the procedures he recommends that you use to test for those enzymes appear in M-21 in his outline?
A. In part, yes. There are some modifications. M-21 does not contain the procedures for developing transferrin and Gc together. There's some modifications. When you develop for transferrin, you let the hemoglobin run to five centimeters instead of four, and, of course, you put the overlay on for the transferrin.

3a

Q. Well, what procedure did you use for the Group III in this particular case?
A. Essentially the modification of Wraxall's system.
Q. And could you explain that in an outline form for us here this morning?
A. Yes. First of all, the samples are -- are taken first, and they are extracted with a small amount of the gel buffer. After that, they are -- and they are extracted in the refrigerator for up to overnight, depending on the sample itself. Usually an hour is sufficient. You then -- while those are extracting, you prepare the gel

itself, which is prepared out of agarose, and you put that on a piece of plastic, essentially is what it is; and after that is prepared and solidified, you will cut wells into the plate itself, and for the extracted stains that you're looking at, you'll take an extract and fill the well with that, then place it on the cooling platen and immediately put on the voltage.

Q. Is that the procedure that you used in this particular case?

A. Yes, it is.

Q. After you apply the voltage, how long do you allow the electric current to pass through the plate?

A. In this run, it's dependent essentially on how far certain hemoglobin band moves up the plate. It's usually around two hours at 400 volts, but it does vary somewhat, say plus or minus 15 minutes.

Q. Which of the two enzymes do you stain for first?

A. Okay. I stain for essentially Gc and the transferrin serum proteins are stained for at the same time.

Q. And what type of stain do you use?

A. What is done is it's called an immuno-fixation technique, and you put an antisera, something that's anti-human Gc and anti-human transferrin, over the area where those have been found to be and let that incubate for approximately ten -- or two hours, three hours, four hours. Usually two hours is sufficient; and then after that is

done, you take those off, you press the gel with weight, drawing the moisture out of it. Then you put in a solution of one molar saline for overnight. That is to get rid of all the extraneous proteins and stuff that are in the gel.

You then put it into distilled or deiodized water to wash away essentially the salts and whatever else is not supposed to be there or not what you're looking for, essentially, and then press it again, dry it down and stain it with what's called Coosmassie Blue.

Q This stain on the Group III runs, is that a filter paper-type stain or a gel stain or is it different?

A The initial antisera is put on in a liquid state with a cellulose acetate membrane.

Q And then the second stain is what type of medium?

A The second stain after the gel's been dried down is put on in a liquid form, and it's just allowed to bathe over the gel, over the gel itself.

Q Which enzyme do you read for first?

A First of all, they are both serum proteins, and they are read for -- basically, it depends. They're developed at the same exact time, and they stay around for a long period of time. As a matter of fact, we have them stored in the laboratory now, so you can read either one first.

Q The procedure that you've just outlined, is that the

procedure that you employed on the bloodstains in the whole blood in this particular case?

A. Yes, it is.

Q. And is that procedure recognized in the scientific community as the proper procedure to employ on Group III runs?

A. Yes, it is.

Q. What procedure do you use to test a stain for haptoglobin?

A. Okay. For haptoglobin, it's a procedure using what are called gradient acrylamide gels, and, again, the stains are extracted with the gel buffer or the tank buffer, actually, that contains approximately 10 percent sucrose solution. That's to make the stain or the extract heavy. The gradient gels we buy from Pharmacia, and they are approximately 4 percent to 30 percent acrylamide gel. You then take the extract of your stain. You wash that with chloroform to remove any miscellaneous cellular debris which -- and other things which cause streaking in the gel. You then take the extract and you pipette or take a syringe and put it in a well on the plate itself. Then you run the samples into the plate and then run it overnight for approximately 20 hours at 200 volts.

Q. Directing your attention to an exhibit which has been marked for identification as M-22, do you recognize what that appears to be a xerox copy of?

A. Yes, I do.
Q. And could you tell the Court what it is?
A. This is pages out of a thing -- a book that was prepared by Pharmacia Chemicals, and it contains some outlines on the procedures for doing gradient acrylamide gels.
Q. Does it contain portions of the outlines of the procedures that you used in this particular case?
A. Yes, it does.
Q. The procedure that you've just described to do the haptoglobin, is that recognized in your community of serologists as a proper scientific procedure to employ in testing bloodstains to determine their haptoglobin type?
A. Yes, it is.
Q. And are portions of that outline reflected in M-22?
A. Yes, they are.
Q. Directing your attention to the chart which has been placed on the board behind you which was marked at an earlier hearing as K-1, did you prepare that chart perhaps sometime in April of 1984?
A. Yes, I did.
Q. And was that during the initiation of your testimony at the Kelly-Frye hearing?
A. Yes, I did.
Q. And does it indicate the -- for example, the various gels that you employed on the group systems in the Cooper case?

A. Yes, it does, except for the haptoglobins. There is -- there is a difference there,

Q. On the gel or on the buffer?

A. On the buffer itself.

Q. But the chart accurately reflects the type of gels?

A. Yes, it does.

Q. With the exception of the haptoglobin, does the chart accurately reflect the type of buffers that were used, for example, on the Group I through IV systems?

A. Yes, it does.

Q. And does the chart accurately reflect the pH's that were used on your electrophoretic runs in the Cooper case?

A. Yes, it does.

Q. The stains that you used for each of the various group systems, do those appear on the chart?

A. Yes, they do.

Q. And does the chart accurately reflect the stains as well?

A. Yes, it does.

Q. Could you perhaps with the red grease pen for the haptoglobin and specifically the buffer -- could you indicate in parenthesis and printing in red perhaps the buffer that you actually used on the haptoglobin.

A. The buffer that I actually used was not a TRIS/glycine. It was actually a TRIS/boric acid.

Q. And the difference between the two, if any, is what?

A Basically, simply the substitution of boric acid for glycine.

MR. KOCHIS: If I could have a moment, Your Honor.

(No omissions.)

Q. (BY MR. KOCHIS:) In this particular case, did you test some saliva to determine whether or not in fact they were saliva?

A. Yes, I did.

Q. And did you test, for example, certain cigarette butts for the presence of amylase?

A. Yes, I did.

Q. Why?

A. The reason behind that is to see if there was enough amylase present, which is an indication that there would be enough saliva present for ABO typing.

Q. What was the name of the test you employed in this case to determine whether or not certain stains contained amylase?

A. The -- I did a couple of different ones. One was the phaedebas test. The other one would be the diffusion, or, starch diffusion.

Q. Could you outline the phadebas test first.

A. The phadebas test is done using a starch dicomplex which is developed into water, and a certain amount of the extract of the cigarette butt or whatever you're looking at is added to a certain amount of the dicomplex in solution. They're then placed in the oven for approximately 15 minutes. And after that -- they are in test tubes. And then they're taken out and spun in a centrifuge and read just with the visual eye to see if a blue color has developed in the supernatant, or, the top

solution.

Q. The procedure that you just outlined, is that the procedure that you in fact employed on some of the stains in this case?

A. Yes, it is.

Q. And is that procedure recognized in the serological community as being a proper scientific procedure to employ on a stain to determine whether or not it contains saliva?

A. Yes, it is.

Q. The second test that you mentioned, could you describe that.

A. The second test that I mentioned is the amylase diffusion test. And it is done with an agarose gel which contains starch. Holes are made in the gel, and then you put standards of diluted saliva sample in -- into the one set of holes, and then you put your stain in a diluted series of that in whatever holes below that. The samples in small plastic dishes are placed in a moisture chamber and placed in an oven at 37 degrees for overnight. They are then taken out of the oven and have a dilute iodine solution poured on top of them.

Where the amylase has reacted with the starch, there will be no color development. Where it has not reacted with the starch, there will be a blue, kind of a royal blue, color that develops.

Q And is that test likewise recognized in your community as a proper scientific procedure to employ on a stain to determine whether or not it contains amylase?
A Yes, it is.
Q And the presence of amylase may indicate the presence, for example, of human saliva?
A Yes, it -- it can, yes.
Q Did you likewise further test some stains to determine the ABO blood group type of the person who deposited the saliva, for example, on a cigarette butt?
A Yes, I did.
Q And what was the name of the test you employed to make that determination?
A Name of the test that I employed was absorption-inhibition.
Q And how does the absorption-inhibition work on a suspected saliva stain?
A Okay. Again, if you're testing for the ABO antigens, if they're present, what, you want the procedure, basically?
Q Bad question. What procedure did you employ using the absorption-inhibition technique on a suspected saliva stain to determine the person's ABO blood group type?
A At the time of this testing, I was using a -- a tube technique.
Q And how did that work?
A The procedures are you take an extract of the stain, and

then you take approximately one drop of the extract and put a quantity of antisera, diluted antisera, either anti-A, anti-B or anti-H, and putting those with each one drop of the extract, letting them incubate for approximately two to four hours during the day.

I would then take the extract out, place it on a microscope slide, and then add a -- some red blood cells, a dilution of red blood cells to it, and then spin it on a rotator. If there was agglutination or clumping, then the antigen that the antisera was against was not present. If there was not any, then the antigen was present.

Q. Is that particular procedure that you have just outlined accepted within your community as a proper scientific procedure to employ on a saliva stain to determine its ABO blood group type?

A. Yes, it is.

Q. Did you likewise perform a test on suspected saliva stains to determine if the person who deposited the stain was a secretor or a non-secretor?

A. Yes, I did.

Q. What type of test did you do?

A. Okay. Again, the absorption-inhibition test. And then, with Brian Wraxall, we also attempted to do the Lewis test.

Q. Did you likewise test some suspected semen stains to determine the ABO blood type of the person that placed

the semen on the blanket?
A. Yes, I did.
Q. What type of test?
A. The tests that I performed, again, were the absorption-inhibition test for the ABO antigens and, afterwards, the absorption-elution test, again, for ABO antigens on the cellular material.
Q. The procedure that you have outlined that you employed on the absorption-inhibition test for the saliva stains, was that the same procedure you would have employed using the semen stains in the absorption-inhibition test?
A. Yes, it is.
Q. Could you outline the absorption-elution technique that you used in this case in testing the semen stains on the blanket.
A. Okay. The absorption -- absorption-elution technique is essentially done by taking the extract with the cellular materials, soaking them onto threaded cloth, or, piece of threads, then letting that dry. You then take the dried-down threads, place them on a microscope slide again, you add antisera, let that absorb for during the daytime or overnight. And then after that is done, you wash it with cold saline.

After you wash it with cold saline, you dry off any excess saline, add a drop or a quantity of saline to it, and then place it in an oven at approximately 58 degrees

Celsius for 20 minutes.

After that is done, you add the solution of .3 percent red blood cells, either A, B or O, depending on the antisera that you added, and rotate that on a rotator for approximately 10 minutes for the first reading.

Q. Is that technique, the technique that you just outlined, accepted in your community as a proper scientific procedure to employ in using the absorption-elution test on a semen stain?

A. Yes, it is.

MR. KOCHIS: I have no further questions on this portion of direct.

CROSS EXAMINATION

BY MR. NEGUS:

Q. When you were testing last June a year ago, during your description, you -- you indicated that at that point in time you would do certain things. Have you made improvements in the -- in the system that you used since last June?

A. I would say so, yes.

Q. What improvements have you made?

A. In which system?

Q. Let's just start with the electrophoresis runs. Which improvements have you made in your electrophoresis runs?

A. As far as Group I is concerned, there is a couple, couple

of things. One is that I use what is called Meldola Blue instead of PMS in the reaction mixture. This allows for overnight incubation without any excess staining occurrence -- occurring. In other words, the whole gel doesn't turn blue. I can still pick out bands.

We're still working on the glyoxalase system to see if there's any -- any kind of way that we can start using that.

As far as Group II is concerned, currently I'm doing a what I call a modified Group II. It is a day run at 350 volts or 400 volts for three and a half hours, and the gel and the tank buffer at pH 5.8. Also in that system we're developing for the enzyme 6PGD in the middle of the plate after -- along with ADA, AK and EAP.

Group III, there's essentially no modification. Group IV, we're still looking at the G6PD and, in some cases, are able to call that. As far as haptoglobins, are essentially the same.

(No omissions.)

Q The purposes of your changes in the Group II are essentially to try and get G6PD in addition to the things that you were getting before?

A Well, that's part of it. Also, the day run allows for a sharper, more defined bands.

Q The changes which allow for overnight development of the PGM, why weren't you doing that back in June of '83?

A Basically, at that time it was still experimental technique, and we were looking at it to see if it was or was not -- whether there was disadvantages that overcame the advantages of it, for instance, sensitivity.

Q Let me show you a couple -- I'm showing you Exhibit H-392. Does that appear to be a picture of an EAP run or a photograph of your photograph of an EAP run that you did in August of 1983?

A Yes, it is.

Q And is that using the technique that you have on the board with the pH of 5.5?

A Yes, it is.

Q Showing you a couple other photographs which have been marked as H-393 and H-394, are those EAP runs that you did in the end of May of 1984?

A They appear to be, yes.

Q And is that using the pH of 5.8?

A No, it's not.

Q That's still using the same pH of 5.5?

A. Yes, it is.
Q. Showing you Exhibit H-344, is that a -- does that contain on the back of it labeled EAP a photograph of the run that you did which included A-41 in August of 1983?
A. Yes, it does.
Q. And does -- that was using the pH of 5.5 as well; is that correct?
A. Yes, it is.
Q. Now, just taking -- let's take one of the easier ones. Does the -- does the photograph H-393 -- does that appear to be a contact print of a Polaroid negative that you produced at the time that you -- that you made that -- made that run?
A. Yes, it does.
Q. And approximately what is the scale of that -- of that contact print?
A. I would say it's one half the size.
Q. Could you indicate with a green felt-tip pen where the 13 centimeters would be that you would place the -- how far 13 centimeters would be from the origin on that where you placed the photo paper on your stain.
A. It's not 13 centimeters from the origin. It's 13 centimeters from the cathodic end.
Q. Where would that -- where would that end out?
A. Well, on the photograph, you can see approximately where it would be from the fluorescence.

Q. Okay. Could you indicate that.
A. Again, I don't know if that's 13 centimeters from the cathodic end.
Q. Well, why would it not be 13 centimeters from the cathodic end?
A. Because at times, I'll put it on the hemoglobin rather than at the cathodic end.
Q. Well, okay. What -- the hemoglobin is up a little bit from the cathodic end?
A. A couple of centimeters, yes, usually.
Q. So that might even be, for example, 15 centimeters or something like that from the cathodic end?
A. Yes, sir.
Q. There's no useful information as far as the EAP is concerned on the cathodic side of the origin; is that right?
A. Yes, there is.
Q. What's that?
A. The possible development of, if present, an EAP Type D variants.
Q. So that's why you stain on both sides?
A. Yes, sir.
Q. In -- if you have your original, you might consult it as well. H-392, how far did you stain in that photograph from the cathodic end?
A. Okay. Again, I can't tell for sure from the photograph

without doing some -- some measurements.

Q Let's see what we have. I don't know if it's convenient. We might have a yardstick. Do you have something better?

A I don't.

Q I have something that appears to be in tenths of inches, if you want to try and use that.

MR. KOCHIS: Your Honor, were we going to take a short recess some time this morning? I wonder if he's going to do some calculations, if we could take the recess now.

THE COURT: Sure. All right. We'll take a brief recess.

(Recess.)

(No omissions.)

MR. BRUCE LANCE: Your Honor, do you have any better reading on this afternoon's 1:30 time as opposed --

THE COURT: Counsel, we expect to conclude by noon?

MR. NEGUS: I probably -- I doubt -- we may be through with Mr. Gregonis, but we had a couple other things that we were going to at least argue. And I can't imagine being done with everything by noon. But I don't think it's --

THE COURT: How long do you expect this afternoon? I'm not trying to inhibit you. But, generally, what's the best estimate?

MR. NEGUS: Probably a half an hour to an hour this afternoon will be my best guess. I don't know. I mean, it's -- we can always work things around to meet your schedule and put some of these over. It doesn't really matter much to me.

I'd like to get finished, obviously, with Mr. Gregonis. And if I could do that by noon, I would. But I'm not -- it's -- it's not going to take a long time.

THE COURT: The other matters are evidentiary matters?

MR. NEGUS: No. The other -- the thing -- the three things that we have hanging over that I can remember off the top of my head are all -- not -- all have to do with -- with the blood. That is, we first of all have to finish this thing. Then there's the relevancy, People vs. Lindsey, which we mentioned to you. And then there is the 1385 motion to dismiss because they -- the evidence isn't reliable enough. And all those are just something that really needs to be

articulated so that I feel happy that I made the motion, and then rule. I can't imagine them being extensive arguments.

THE COURT: Come on in at two o'clock.

MR. LANCE: Thank you.

THE COURT: Go ahead.

Q (BY MR. NEGUS:) Okay. Mr. Gregonis, you attempted some calculations on -- on the photographs of the 8-4 and the 8-2 run; is that correct?

A Yes, I did.

Q Okay. How far past the cathode did you stain on the 8-4 run?

A Approximately 7 centimeters.

Q Why is that?

A That's basically the standard procedure.

Q Well, you talk about past the origin or past the cathode.

A Oh, past the cathode, excuse me. It's 13 centimeters past the cathodic end of the plate.

Q Okay. And how about the 8-2 run?

A Again, the same.

Q How did -- how did that 13 centimeters figure get -- get arrived at? I mean, what's the -- why -- why do you do it for 13 centimeters, no more?

A Well, that's a -- I'm sure it's a -- an empirical type of reasoning to pick up the four major bands of the EAP plus any storage bands that are up above that. And I'm sure at this point, with what I know now, to pick up the

R bands or an indication of the R bands.
Q. Well, let's -- on these ones that you -- that you did, H-393 and H-394, it would appear that the stain is 2, 3 centimeters further, at least, on -- on the patterns. Is that -- is that correct?
A. I don't understand what you're saying here.
Q. Well --
A. I mean --
Q. You look at -- you look at the one that you have on H-392. It looks like you cut it right in the -- right in the middle of the R band; is that --
A. Okay. First --
Q. -- true?
A. -- first of all, I have to explain something to you, Mr. Negus, that there are actually two overlays that I did on the 8-4 and the 8-2 runs. One is the initial overlay with the -- the MUP. And then the next one is a very dilute basic solution that was put on. And if you look at -- first of all, this photograph doesn't illustrate that at all.
Q. The photograph you're talking about, H-392?
A. That's true.
Q. Okay.
A. What you have to look at is on Photograph 4, the run on 8-4-83, the lines of delineation here. The first overlay on the top, if you can see the -- the lighter

glow, and then the second overlay is approximately a centimeter below that.

Q Why did you make it a centimeter below?

A The reason behind that is that the ADA overlay starts at approximately that area. And with putting on the dilute basic solution, you're changing the pH of the -- of the gel itself considerably so that if you were going to put it all the way up to the 7 centimeters you're changing the pH of the gel and, consequently, the activity of the ADA bands.

And in this case, it is possible if you put it up that far to miscall an ADA 2-1 as a 1 because of the inactivity of the 2 band.

Q Was there any danger in doing it the way you did in miscalling the EAP?

A Well, as I know now, yes, because you aren't picking up the R bands or the intensity of the storage band, if you will.

Q Why do you say "as you know now"?

A It was my feeling at the time that you cannot differentiate the B's from the R's on the system. As I have learned subsequent to that, you can.

Q Well, had you read that Exhibit -- had you read this exhibit, M-21, before you did the test?

A At some time in the past, yes.

Q It says pretty clearly in that document, does it not,

that the rare variants, Type R and D, are separated in this system and should be easily identifiable?

A. That is something that I took as a -- as a literal thing. In other words, you cannot -- you could pick up the R's, but I didn't think that you could pick up the RB's as opposed to the B's. You could pick up the D's -- well, the D's are easily picked up. I knew that, because of where the -- where they're located on the origin.

Q. Well --

A. Or, where they're located on the plate.

Q. Well, there's basically no known RR's in the world, right? I mean, nobody's ever seen an RR, have they?

A. I don't know.

Q. Basically the R types are RA, RB and RC, the main ones; isn't that right? And those are the ones that you're dealing with?

A. I would say so, basically, yes.

Q. So it's pretty clear that what Mr. Wraxall is talking about is the different -- those different phenotypes, RA, RB, RC, right?

A. Well, it's clear to me now, Mr. Negus. But I took it at the time that the R was separated, and it would be obvious that the R would be separated because of the nature of where the bands lie.

In other words, you wouldn't, if you had a simple R, you wouldn't pick up the -- the B prime band; if you

had an RA, again, you wouldn't pick up the B prime band.
Q. When did you learn that you could -- that you could tell about R's from -- from Mr. Wraxall's system?
A. Whenever Mr. Blake testified. The day afterwards, I believe.
Q. On this -- that would have been, therefore, after you did the -- did the runs on H-393 and H-394, correct?
A. That is correct, yes.
Q. Well, why did you do it -- so that you can see in H-393 and H-394 pretty clearly all the storage and R bands. Why -- why did you not cut them in half like you did earlier?
A. Well, first of all, I think you have to look at the -- the two different runs. H-393 and H-394 both appear to be day runs. This one might be an overnight.
Q. I thought you told me that -- that they were the same system as you used --
A. Well, it's the same pH. Both of these are day runs, which tend to make the bands tighter on the runs. So it's -- it is different from the runs on 8-2 and 8-4 of 1983.
Q. Well, why -- why were you -- why did you switch to the day runs? I mean, what -- what's the point of that?
A. Basically, again, to tighten up the EAP bands.
Q. Why didn't you do that back in June of 1983?
A. Because I was used to -- the system at the time seemed

sufficient, and I was confident in the results at that time, that the EAP's, at least the six common phenotypes, could be called easily off of that system.

Q. Well, when you -- when you were looking at the plates -- well, the first overlay, can you read -- can you read -- can you read the EAP's just using your filter paper, without putting the solution over it?

A. It depends, basically, on the sample on the run. Many times you can. However, the other overlay, the dilute sodium hydroxide overlay, enhances the bands. And sometimes you can read more of the types that you could not read before.

Q. Could you put the dilute sodium hydroxide over the ones you did in runs 103 and 10 -- 101?

A. No, I did not.

Q. Knowing what you know now, can you tell that the V -- the 2 in 101 and 103 that are labeled VV-2 are an RB?

A. It appears to be, yes.

(No omissions.)

Q You have no -- no particular memory, though, of what the actual plates looked like back in August of '83, other than your photographs; is that correct?

A That is correct, yes.

Q Is there -- can you see on the original photographs that you took of 8-2 and 8-4-83 any useful information past the area that you stained with the sodium hydroxide?

A Not really, no.

Q Are there different skills involved in running the tests, that is, mixing the chemicals and preparing the gels as opposed to reading the results?

A Well, I would say some people are more skilled than others, yes.

Q Well, I mean you have -- do you have to know different things? I mean it's not -- it's not -- you can be trained, for example, in preparing the gels without necessarily being able to read the test; is that correct?

A That is correct, yes.

Q And vice versa, presumably?

A I would say so, yes.

Q Now, as far as -- as far as ability to -- let me ask you. Looking at that 8-4 run where you cut the R band in half, can you tell that the VV-2's in that are an RB now that you have more knowledge?

A They appear to be, yes.

Q Can you tell what the A-41 is in the 8-2 run?

A. No, I cannot.
Q. Still look like a B to you?
A. It could be a B or an RB, because the storage band or the R band where it would be, if it was there, is cut off essentially.
Q. Cut off entirely?
A. Well, there is a slight -- there is a slight glow up there, but I can't say whether that would be the storage band or not, since there's -- it's not as high as it is on the run on H-392.
Q. Well, why did you -- why did you differentiate between the 8-2 and 8-4 as far as how far you stain it?
A. Well, as far as at least my calculations from the pictures, I stained with the sodium hydroxide on both of them approximately 6 centimeters up from the origin, so I'm staining approximately the same. It's just that the enzymes may have had different mobilities at that time.
Q. If -- well, you were always concerned, were you not, with -- with looking at the storage bands during the entire time that you were -- were running EAP's; right, before or after your knowledge about R bands; isn't that correct?
A. Basically, yes.
Q. Why didn't you put more sodium hydroxide on there when you determined that you weren't picking up the storage

band that you would expect?

A. Okay. Again, I believe I explained that, because it would interfere with my ADA readings, and if I saw it without the sodium hydroxide, that is not noted whether I did or did not.

Q. Why did you make a call then without the information about the -- about what kind of storage bands you have?

A. Well, as far as the excess storage bands or something like that, I -- nothing appeared abnormal to me.

Q. How would you know if it appeared abnormal if you didn't stain so you could see it?

A. Okay. Again, I did stain this thing 7 centimeters, which I -- which I, from the picture, would I think pick up the storage bands.

Q. Okay.

A. It's hard to say at this point.

Q. If there were one band up there in that area, especially on A-41, that was glowing considerably darker, I mean considerably brighter than all the other storage bands in the area, especially relative to the -- to the B band on what was supposed to be a fresh sample, wouldn't that sort of leap to your mind as something significant?

A. Not necessarily. It's something that a lot of times I expect to be there, because it's a storage band, and upon sitting, the blood will develop that band up there.

Q. Well, A-41 had been in the freezer since the day --

presumably a day after it was shed; right?
A. That is true.
Q. So you wouldn't expect much of a storage band up there after you hit it with the Cleland's reagent; right?
A. I wouldn't expect it, but I don't think it would have struck me as unusual to find it up there.
Q. You did clean the samples with the Cleland's reagent before you put them in there; right?
A. I used mercaptoethanol.
Q. Excuse me. Mercaptoethanol. You did clean them up with that; right?
A. Yes, I did.
Q. And the nature of that reducing agent is such that if it's not potent, you'd notice it right away, because you would not smell what you'd expect to smell; is that correct?
A. Essentially, yes.
Q. I mean it stinks, basically; is that true?
A. Yes, it does.
Q. Since you testified at the Kelly-Frye hearing, have you been provided a copy of your testimony at that hearing?
A. Yes, sir, I believe I have.
Q. And have you also been provided with -- with copies of Dr. Sensabaugh's and Mr. Wraxall's testimony?
A. No, I have not.
Q. Have you gone back and read your testimony at the

Kelly-Frye hearing?

A. I have skimmed it. I haven't read it in detail.

Q. Do you recall during that hearing my asking you numerous questions about sample degradation?

A. Yes, I do.

Q. Have you gone back and attempted to determine whether any of the answers that you gave to those questions were incorrect?

A. Okay. Again, since I haven't read it in detail, I have not, no.

Q. Have you -- have you received any further testing -- excuse me -- any further instruction in the biochemistry that's involved in making calls since you testified in that hearing in April?

A. Well, I have obtained further information, yes, in particular, the one on EAP.

Q. Well, do you still think that the reaction of neuraminidase with EAP causes wet state changes?

A. Well, that is a wet state change.

Q. With EAP?

A. I believe so, yes.

Q. If you were wrong about that, do you think that would affect your ability to call EAP?

MR. KOCHIS: Objection. That would call for speculation.

THE COURT: Overruled.

THE WITNESS: I don't know.

Q BY MR. NEGUS: Do you still think that in PGM deamidation results in a shift of the bands towards the cathode?

A I believe we clarified that in earlier proceedings, Mr. Negus, and the deamidation is an anodic shift. That's a secondary band for PGM.

(No omissions.)

Q. Did you take -- when you were doing the -- the -- the test that you did on the suspected saliva and the cigarette butts, did you take photographs of your test to determine the presence of amylase?

A. No, I did not.

Q. When you were -- you went up to watch Mr. Wraxall work in the beginning of July, right?

A. Yes, I did.

Q. And you watched him do essentially the same type of test; is that right?

A. Okay. As far as which cigarette butts, I'm not sure whether I tested the ones, whatever you're talking about, with the phaedebas or with the amylase diffusion test.

Q. Okay. Well -- were -- how about V-12 and V-17? What -- what test did you do on those?

A. I believe I did the phaedebas test on those. I don't have noted which one I did. But I think at that time that's the test I was doing.

Q. In which test did you watch Mr. Wraxall?

A. He did the amylase diffusion test.

Q. Why did you use -- why didn't you -- the -- the amylase diffusion test gives you more information than the phaedebas; is that correct?

A. I would say so, yes.

Q. Why didn't you use the amylase diffusion test back in June of 1983?

A. Simply because we didn't have it set up in our laboratory at that time.

Q. You said that at the time that you were doing the tests on the saliva and semen you were using the tube technique for absorption-inhibition. What -- what do you use now?

A. I use the technique -- well, it's a -- done on microtiter plates.

Q. Okay. And why did you change?

A. Basically because it uses a smaller amount of sample.

Q. You indicated that at that point in time you were -- you were doing three dilutions. How many do you do now?

A. I do -- well, first of all, before I was doing a dilution of the antisera. Now I'm doing a dilution of the -- of the extract itself. And I'll do anywhere from three, four, five, depending on the sample.

Q. Why did you change from diluting the antisera to diluting the sample?

A. The basic reason is because that -- that's how it is outlined in the -- in the original procedure by Ed Blake.

Q. Why did you do it the other way back in June?

A. That's the way that I learned it from the Colorado Bureau of Investigation in Denver, Colorado. And it's up in -- it is still and was a reliable technique at that time.

Q. In the general literature, is -- are three dilutions recognized as sufficient to do that technique, the tube technique?

A. Tube technique?
Q. Uh-huh.
A. The literature that I have seen, yes.
Q. Is there any problem in doing absorption-inhibition if you don't use enough different dilutions?
A. There can be, yes.
Q. What problems?
A. The problems of what is called a pro-zone effect or a post-zone effect.
Q. What does that mean?
A. Simply that either you have too much antibody or too much antigen, and you get false readings.

(A discussion was held regarding another case, reported but not transcribed.)

Q. (BY MR. NEGUS:) On V-12, the non-filter cigarette, how much paper did you take off the proximal end of that in order to do your test?
A. I would say it would be an eighth, somewhere between and eighth to a quarter of an inch.
Q. And how much paper did you take off the proximal end of the filter cigarette?
A. Again, about the same amount.
Q. Have you learned since you last testified that the information available to you in June of 1983 was insufficient to make a -- to reach a conclusion that your results were indicative of a non-secretor?

A. That's based on discussion with Brian Wraxall, yes. He believes so. And I still have research to do in that area to find out whether it is or not.

Q. When Mr. Wraxall was doing his testing of the saliva -- of the saliva and semen stains in July, the first full week in July you were there watching him; is that correct?

A. That is correct.

Q. On one of the semen stains, did he have a result in which there was more H antigen detected than A antigen?

A. Okay. I don't remember specific results. And I know that he did work subsequent to that. But I believe at the time I was there that he did. I'm not sure.

Q. Your opinion of that stain was that it came from a Type A person; is that right?

A. Well, I haven't seen the total results of the -- of the stain.

Q. You -- you tested the stain yourself back in June of 1983, right?

A. I believe at that time I said it was from a non-secretor.

Q. You never did any tests for -- for the ABO type of stain?

A. Yes, I did.

Q. And when was that? Let me withdraw that question.

Do you have an explanation for why, when Mr. Wraxall tested J-13-C, I believe it was, that he got more H antigen showing up than A?

A. Not without knowing further what Mr. Wraxall did specifically, no. I can't really say.

Q. Do you still believe -- well, do you recall testifying at the Preliminary Hearing that with EsD, when it's just aging, just getting older, an EsD -- stain containing EsD, that the 2 band will last longer than both the 1 band and the 3 band?

A. The -- I don't know what you're talking about there.

Q. At the Preliminary Hearing, we discussed at length the differential stabilities of the various -- of the various -- of various different bands, that is, in -- in the -- like the a, b, c, d in PGM, that sort of thing. Do you remember that?

A. Yes, basically.

Q. Okay. And then as far as the -- as far as EsD is concerned, if you plot it out, there's going to be three bands, right?

A. That is correct.

Q. Now, do you recall that -- stating that the second of the three bands in an EsD will last longer than the first?

A. No, I do not, but --

(No omissions.)

Q. Do you believe that's true?

A. Well, the intensity of the thing, the intensity of the band, is higher anyway, than if you're talking about an EsD 2-1.

Q. What about in a 1?

A. In a 1, you have just one basic band. There are -- there is another storage band in there.

Q. Okay. Do -- which of those two will fade faster, if either?

A. Well, I've seen it a couple ways. One is where the storage band is intensified to the point that they're almost equal intensities to the main 1 band, and then the storage bands is equal intensities with that, and then they seem to degrade evenly with that, and then I've seen it where they both degrade about the same rate.

Q. Using the chisum technique for absorption-elution, as you were doing -- well, when you were doing the testing in June on bloodstains, did you use any technique other than -- for absorption-elution other than chisum?

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A. Well, I know that at times, I would use a thread, but I believe at that time I was using the chisum method.

Q. Exclusively?

A. Probably on this case, yes.

Q. And that had nothing to do with the amount of sample that you had, but that was just the technique you were using at the time?

A. Yes, it is.
Q. And were you making calls at that time from the chisum technique with -- with neither a negative control or a result on the Lattes test?
A. I believe I was indicating blood types, yes.
Q. What's the difference between indicating and making a call?
A. Well, it's I guess a matter of degree. The -- with the Lattes reverse typing and a negative control, you're more confident in your result; however, there's still information to be obtained from doing simply the forward test.
Q. Well, for example, on the hatchet, was it your call that you had Type B blood on that hatchet?
A. An indication of B blood, yes.
Q. What do you mean? I mean can you say that it was, or is it consistent with, also consistent with microbes? I mean what --
A. It's basically the -- the best word that I have is it's indicative of B blood, because I do have the B antigen present, and there's human blood present.
Q. Does that mean you can say you're sure there's B blood there?
A. Not absolutely, no.
Q. Is there any reason why you didn't try and use any negative controls on the hatchet?

A I believe at the time that I did the testing on the hatchet, it wasn't available for the blood collected from the hatchet. I don't think it was available to get a negative control from, but I hadn't seen the hatchet up to that point.

Q As you were using the chisum technique in June of 1983, you would make a call from the agglutination of as few as two or three cells; is that correct?

A No.

Q How many -- how many cells did you look at to see had agglutinated before you'd make a call?

A I hadn't really thought of counting the cells, Mr. Negus. It's a matter of looking under a microscope and seeing the degree of agglutination.

Q Well, how much -- can you -- I mean people have used the chisum technique to attempt to make calls based on as few as -- the agglutination of as few as two or three cells; is that correct?

A I think you're thinking about the Lattes technique.

Q I'm talking about -- I'm asking you about chisum.

A I don't know about the chisum. I wouldn't.

Q Well, how much activity do you want before you make a call?

A I would say, depending on my controls that are available, anywhere from what's called a 2+ to a 4+ agglutination.

Q What's -- tell me what -- what does a 2+ and a 4+ mean?

A A 4+ agglutination would mean that essentially all the

cells in the field are in one clump. Then a 3+ would mean that, say, all the cells in the field are in, say, three or four clumps, and then a 2+ would mean that they're in approximately ten clumps with few scattered cells, and then as you -- less agglutination would mean more clumps that are smaller.

Q. When you did the ax, do you remember how many different clumps that you had?

A. I have down here a 3+ agglutination on that.

Q. Well, so what does that mean?

A. It means that it was 3+ agglutination, that I had, say, three or four large clumps in the field.

Q. How do you -- I mean how do you define large clumps? How can you tell whether they're large or just three or four little clumps?

A. By looking under the microscope and comparing them to other agglutination patterns that I've seen before.

Q. And so you can -- from your notes, you can be sure that you had large clumps and not just little clumps?

A. Yes, I can.

MR. NEGUS: Nothing further.

REDIRECT EXAMINATION

BY MR. KOCHIS:

Q. Mr. Gregonis, on the chisum technique, does that technique employ controls?

A. Yes, it does.
Q. What type of controls?
A. ABO blood standards.
Q. And did you use the controls on the chisum technique when you tested the stains in this particular case?
A. Yes, I did.
Q. Would that have included the suspected bloodstain on the hatchet in this particular case?
A. Yes, it did.
Q. Did you use any other tests for ABO other than the chisum technique on the hatchet stain?
A. I attempted to do the Lattes technique for the antibodies.
Q. And what happened when you attempted to do that technique?
A. I got negative results on that.
Q. And do you have a suspicion as to why you got negative results?
A. Two suspicions, really. One is the fact that the ax I believe was Super Glued prior to the taking of the suspected blood, and also that it had laid in a field for approximately a day before being picked up.

MR. KOCHIS: Thank you.

I have nothing else.

RECROSS-EXAMINATION

BY MR. NEGUS:

Q. Didn't you testify last month that Super Glue didn't have

any effect on the ability to type?

A. I believe that's true, and, again, I said that's a possibility. I think the main possibility is that it was because it was laying out in the field for, theoretically, a day or longer.

(No omissions.)

Q How did the controls come out when you did the -- when you did the ax?
A The controls came out, I would say, sufficient. The A is a little weak, as is the O. But, again, there's sufficient.
Q What -- what -- what does the plus 1 mean?
A Plus 1 means several smaller clumps of red blood cells.
Q Can that be an indication that your anti-A serum is weak?
A It could be. However, based on the control for the A that I use, I know from experience that simply it is a weak A to begin with. So if I'm picking it up, even in a plus 1 state, I believe that the test is sufficiently strong.

MR. NEGUS: You're -- nothing further.

MR. KOCHIS: Nothing further.

THE COURT: You may step down.

THE WITNESS: Thank you, Your Honor.

THE COURT: Can you return at 1:15, Mr. Kochis?

MR. KOCHIS: I can.

THE COURT: Mr. Negus?

MR. NEGUS: I suppose.

THE COURT: Let me press you a little bit. I've got an out of state witness on a case that comes from some long distance that we have some emergency about.

MR. NEGUS: I could tell you it's not going to take --

having finished with Mr. Gregonis, it's not going to take too long to go through this afternoon. But we -- I have no problem with 1:15.

THE COURT: I'm willing to come in at 1:30 if you think we can finish it in 30 minutes.

MR. KOCHIS: I can never guarantee anything.

MR. NEGUS: 1:15 sounds safer.

THE COURT: I'm sorry?

MR. NEGUS: 1:15 sounds safer.

THE COURT: Okay. Let's come in at 1:15. Okay.

(Whereupon the noon recess was taken at 11:56 a.m.)

ONTARIO, CALIFORNIA; MONDAY, AUGUST 13, 1984; 1:16 P.M.
DEPARTMENT NO. 3 HON. RICHARD C. GARNER, JUDGE
(Appearances as heretofore noted.)

THE COURT: Counsel.

MR. NEGUS: I guess what we're to --

THE COURT: I think I might tell you that the pressure's somewhat off, so I've sent the case over to Department 1 that has Oregon people down. So take your time.

MR. NEGUS: Well, on the motion with respect to Mr. Gregonis' use of correct procedures and is he qualified to make calls, which is what I think we were just doing, I really, unless you have questions, I'm not really inclined to argue it too much.

THE COURT: All right.

You wish to be heard?

MR. KOCHIS: I would say that, in terms of a foundational level, that we have met that. That I believe as early as April other experts, including Dr. Morris and Dr. Wraxall, took the information that was memorialized on a chart and testified that in their opinion the exhibit that's now before the Court is a proper scientific procedure to use in an electrophoretic analysis of bloodstains. And I would argue that any discrepancy in what Mr. Gregonis did and what may be optimum may be a matter that would go to weight and not to admissibility.

THE COURT: Anything?

MR. NEGUS: Nothing further.

THE COURT: Counsel, I accept that. So I will deny your motion in that regard. I think he's qualified.

Proceed further.

MR. NEGUS: Next motion we have to determine is -- has to do with the relevance of statistical information as to the frequency in the -- in the community of various blood types. And I believe that People vs. Lindsey, which we have mentioned before, 84 Cal. Ap. 3d, 851, is one of the leading cases in this -- in this particular -- in this particular area.

The basic argument I would make is that, given the various problems with Mr. Gregonis' analysis, that the only thing that might be probative is the issue of does the blood match or does it not. If we get into the issue of what percentages in the community that we're going to be dealing with are in the world or in the country, the doubt as to the various outcomes of the various tests that he did is going to be such that it is not going to be possible to give a -- a figure, one that is -- that is reliable as to the percentage of people in the community.

THE COURT: Counsel, I perhaps should be embarrassed, but I haven't read the Lindsey case. You want to recap it for me or give me a recess?

MR. NEGUS: Well, Lindsey says that blood evidence, and they dealt with ABO in that particular case, was not

relevant to show that the defendant was present at the scene of the crime without additional independent evidence tending to show either that the man who committed the crime did lose blood in the process, which we don't have here, or that the defendant was present at the scene. So that you -- that blood evidence can only be used to corroborate other evidence of the defendant's whereabouts at the scene.

So it's basically -- it's a relevancy question, that as to when -- when that evidence is relevant to prove the defendant's -- presence of the defendant. I would submit that that basically is their evidence in this particular case.

THE COURT: Well, without A-41, you would agree with that, Mr. Kochis, would you not, that there would be no relevancy to putting in the blood types unless we can -- unless we can put that to him?

MR. KOCHIS: Here's the way I look at the serology. Lindsey only applies to A-41. There are a number of other bloodstains that the People feel are very important, very relevant, specifically the stains on items of evidence, the rope and the button, that are found in the Lease house. But those, because they're consistent with either Mr. Cooper or Mr. Ryen, regardless of what position you take, they're equally relevant in that they support the People's position that the killer was also in the Lease house. I mention that because Lindsey doesn't seem to address that problem. Lindsey doesn't address the problem of blood that's consistent with

coming from a victim being found in a location where the defendant was. So I'm wondering if I can get some guidance, perhaps, from Mr. Negus' argument, is -- I assume when he talks about the Lindsey objection he's limiting the objection specifically to A-41.

MR. NEGUS: No. I think that it's -- I think that it's even perhaps stronger with respect to the evidence, with respect to the hatchet, with respect to the -- with respect to the button and with respect to the rope, because the --

THE COURT: Well, now, wait a minute. If they can use that evidence of bloody items in the Lease house to tie it in with the Ryen house, that's certainly relevant.

MR. NEGUS: Well, but they can't. And, see, in -- in Lindsey, what they said was that a Type O, or whatever it was in Lindsey, person, just having that -- that particular thing, because so many people could fill -- fall into the class of people from which that blood came, that unless you have some way to tie -- to, you know, to actually tie it in to the -- to this particular case, it's irrelevant. Like if you found a drop of Type A blood sitting here on the counsel table and you were trying to prove that some Type A person in the world had been here, it's just not relevant to do that unless you have some other evidence that they have -- that a Type A person has been there, because 40 percent of the population of the world is Type A.

THE COURT: It's one of remoteness, then, isn't it?

MR. NEGUS: That's basically what -- that's -- Lindsey is not what I would call crystal clear on its reasoning process. But that's at least one possible -- that's one --

THE COURT: I think I'd like to take a few minutes to read it.

MR. KOCHIS: Your Honor, it's at 84 Cal. Ap. 3d. And the pertinent portion of the Court's ruling appears on Page 866. The case itself starts at 851.

THE COURT: Yes. I have it.

Brief recess.

(Recess.)

(No omissions.)

THE COURT: All right. You want to continue? I think I understand the holding now.

Do you wish to be heard further?

MR. NEGUS: Just my argument that -- that basically with respect to the items from the Lease house, there's not enough -- you can't limit the -- the serological evidence is so -- is so equivocal, seeing how he wasn't able to get anything to come out on it, that -- that there's little, if any, relevance to that, either. That, coupled with the fact he didn't get anything that he wasn't able to -- to do any of the enzyme typing because of his whatever -- whatever packaging difficulties or whatever that he had, you just don't have enough to -- to prove anything.

THE COURT: Mr. Kochis?

MR. KOCHIS: Well, Your Honor, as to the two scenes, Lindsey, of course, says you have to have some -- some independent additional evidence that indicates the defendant is at the scene, and I don't think there's any quarrel or quibble as to the Lease based on the phone calls, the footprint, the fingerprint and the stolen clothing which is later found in Mr. Cooper's possession in Santa Barbara; so Lindsey seems satisfied as to the ABO blood Type A.

As to the Ryen house in A-41, it's been our position that the evidence establishes circumstantially that the murderer, the person who murdered the Ryen family, was at a period in time close to the murders in the Lease house,

and we make that argument based on the hatchet, which was last seen by the fireplace, enclosed with the hatchet sheath in the bedroom, the master bedroom that Kathy Bilbia lived in, which was moved out, which was cleaned, which was vacant, the hatchet sheath being found in that bedroom with some bedding not found in there when she moved out. The bedding had the semen type on it which the evidence has shown had to come from a Black man.

THE COURT: All right.

MR. KOCHIS: A Black man. It's found adjacent to the shower in which Mr. Cooper's footprint is found. The hatchet is found on the only paved roadway back to the main road. I think the evidence indicates circumstantially that the murderer took the hatchet from the Lease house, went to the Ryen house and committed the murder.

You also have the footprint on the bedsheet of the Ryen master bedroom in blood which matches the impression in dew on the spa cover which matches the impression in dust inside the Lease house. They're all consistent with being made by the same shoe that evidence at the prelim established, and that is with an impression that's consistent with being made by a Pro-Ked tennis shoe. The --

THE COURT: Counsel, I can stop you.

Mr. Negus, my quick notes when I was in there, that there would be sufficient corroboration under the Lindsey test by, one, we have the additional evidence that defendant was

at both of the premises based upon the phone calls and footprints; the escape and the other matters Mr. Kochis mentioned; the semen stains; all of this is corroboration, ties the two homes together.

MR. NEGUS: The disputed fact, though, is not that Mr. Cooper was at the Lease house, but with respect -- but the disputed fact is did the button, for example, and the rope and the ax somehow get into the Ryen house. The only evidence that the prosecution has for that is Mr. Gregonis' rather problematic typings of those -- those items. I mean the -- the purpose of the -- of the evidence of the blood on the button is not to show that Mr. Cooper was in the Lease house. The purpose is to show that somehow the button got from the Lease house -- from the Ryen house over to the Lease house, and the evidence of the blood is just not probative of that particular fact.

THE COURT: Well, I'm not going to tell counsel how to argue his case, but I can see that once he puts him there in the Lease house, he's going to attempt to tie the two houses together.

In addition to that, we have a time element involved in this that's going to circumstantially put him in the Ryen house, at least arguably.

Counsel, as I indicated before I even read the case, as opposed to pure relevancy, it's one of remoteness, and I don't find it too remote under the circumstances here; so it

may be received.

Next, please.

MR. NEGUS: Last motion that I was planning on doing today was a motion under 1385 to dismiss the special circumstance allegations or at least the death penalty part of that. The -- I forgot to bring the right file with me, but there's a Williams case which I think is found at 30 Cal.3d something which indicates that you can -- that the judge has a right to use 1385 to dismiss special circumstances or to reduce a penalty from death to life.

In another two weeks there will be a case that says you don't have to wait till after a case has been tried to say that, but I think you could make that argument from the Williams case right now.

THE COURT: Well, assume the law. Why would I do it in this particular case?

MR. NEGUS: Because under Woodson vs. North Carolina, the penalty of death should only be applied in a situation where you can have substantial certainty that the person that you're accusing of doing it is in fact the perpetrator. There's -- there's a requirement in -- in -- in those cases that we know that you're giving the death penalty to the right person.

I would submit that all the evidence brought forth in the Hitch motion and in the motion on the serological evidence is -- shows that the Sheriff's Department in their

handling of this particular case has made it impossible for us to obtain the kind of certainty which is necessary in order to impose a judgment of death under both the California and the U.S. Constitution.

THE COURT: Anything?

MR. KOCHIS: I think the motion is premature, and I dispute everything that Mr. Negus has said. I don't know of a case that indicates at this point the appropriate thing for the Court to do would be to dismiss the death allegation.

THE COURT: We have our remedy later on. I'm sure I have the power, if I'm not convinced sufficiently, to set aside a jury's verdict.

MR. NEGUS: The great advantage of doing it now, rather than later on, is that we're more likely to get a fair trial on the issue of guilt or innocence if we do not have to have a death-qualified jury, and it certainly would save substantial time.

THE COURT: I'd like to save time, Counsel, but in this case, I've heard enough to where it -- it can go to the jury. I will not take such a step at this time; so that's denied.

Mr. Kochis at one time suggested that Harris indicated the propriety of an amendment to the Information.

MR. KOCHIS: I have read Harris. I have discussed it with Mr. Kottmeier, and absent something unusual taking place, I would anticipate prior to the time we return on

September the 3rd, if not prior to that time, on the 3rd of September filing an amended Information with the Court that would reflect four counts of murder, one count of attempted murder, and one allegation of special circumstance multiple murder to apply to the case. And the escape, of course.

THE COURT: All right. We're going to resume on the --

MR. NEGUS: Fourth.

THE COURT: Fourth of September, and the topic for consideration at that time is Joshua Ryen; correct?

MR. NEGUS: At that point in time is -- well, Your Honor, I'd like to give notice now to the whole world that we will be requesting, and I believe Mr. Kochis will be joining in that request, that that hearing with respect to him be closed to the public for special reasons which have to do with his security as much as anything else.

THE COURT: You're not asking just to avoid extended coverage now, but to close the proceedings?

MR. NEGUS: That's right, and that's clearly something which is within the Court's prerogative under all the United States Supreme Court cases.

THE COURT: Will you be filing anything in that regard? I don't really know the extent of what's coming up, I don't think.

MR. NEGUS: All I intend to do --

THE COURT: You know, I haven't hesitated before in

taking up matters in chambers where I thought that the public at large should not hear my words or perhaps yours.

MR. NEGUS: Well, this will involve testimony. We received various confidential materials on Joshua Ryen pursuant to an agreement that we've worked out with the counsel for the two people, Richard Ryen and Mary Howell, who have a stake in Joshua's future custody and who are -- apparently I believe now have joint custody of Joshua, and as part of the motions on Joshua --

THE COURT: When you say "we have received," both you and Mr. Kochis?

MR. NEGUS: Yes. Mr. Kochis and I have both received this information. The main -- I believe the bulk of what the testimony and evidence that I will be presenting at that motion will be based in large part on -- on those confidential materials. There are -- Judge Schaefer has already made a motion on that actual custody case keeping that material confidential for a --

(No omissions.)

THE COURT: You mean he's made an order to keep it confidential?

MR. NEGUS: Yes. That hearing was closed to the public. And the records are currently sealed. We have them pursuant to a stipulation signed by him that we would not release them to anybody else and that we would make this particular motion when we got to this particular stage. So I just wanted to let you know that we would be making that.

And I think also that there's -- that the issue of Josh Ryen is also a rather inflammatory one. And if you consider the possibilities of having extensive publicity on that just before we start going to jury selection, that would not be in Mr. Cooper's interests, either, or in the interest of having a quick trial there.

And I can give you -- I'm just telling you what we're going to do. I can -- we can make, I think, Mr. Kochis and I, both a better record to justify it, what we're saying, with more detail when we start up on the 4th.

THE COURT: Are you at liberty to let me see a copy of your reports or not, the one -- the confidential information that you --

MR. NEGUS: Only if it's kept --

MR. KOCHIS: I'm going to have no objection to that, assuming they would be admissible at the hearing. I -- I don't know yet from Mr. Negus exactly who he's going to call, what his expert's name is and what areas we're going to be

getting into.

MR. NEGUS: I don't know that, either, because it hasn't yet been finished. We didn't get them all that long ago. And I haven't had a chance to process them.

THE COURT: Counsel, I simply want -- I would like you to file something, a formal request, supported by declaration with authority in some way justifying the closed hearing, because in this case, when we close a hearing, we're going to perhaps broaden the scope of inquiry, and we get the newspapers here, and we get off on free press --

MR. NEGUS: I'm not sure if the newspapers are aware we're going to be beginning on the 4th.

MR. KOCHIS: One thing I can add, Your Honor, my understanding at this period of time is the media is not aware that we're going to be litigating as to Joshua Ryen on September the 4th. I don't intend to make that information available to them. And if no one else does, I suspect they simply won't show.

THE COURT: I understand.

MR. NEGUS: I've studiously avoided letting them know that myself.

THE COURT: I understand it. Both of you have succintly told the press and our media no comment. And I respect you for that. I appreciate that, frankly. I'm not against it. I simply want to make sure we're on good grounds. And I think that I can probably do that. But somebody --

sometimes you run into a buzz saw --

MR. NEGUS: I'll make sure you have the proper documentation and evidence from which to make such a finding.

THE COURT: And that can be a sealed document that need not be reflected in the file. But furnish that to me, and I'll -- I'm, at this time, amenable to doing that. I want to make sure certainly I don't make some precipitous order that brings the wrath of God down on me and the press. Once before, when I did that, I got deluged with stuff from New Jersey and Connecticut and New York and all over the country. Everybody, all the different newspapers, are quick to jump in when they think they have been stepped on in any way. And I'm not afraid of that except that I don't want to do it unless there's good cause for it and unless I'm on good grounds.

Anything further?

MR. KOCHIS: No.

THE COURT: We resume, then, in this department on the 3rd -- 4th of September at the hour of 9:30. That -- following that hearing, probably on Friday, in fact, if you -- I'll make an order transferring Mr. Cooper to San Diego. But I didn't think that I would do that until right before the time comes up. Probably Friday of that week.

If you see Sergeant Reynoso over there, would you have him drop by. I'd like to talk to him, see if he's going to be going down there for any reason at all.

DEPUTY COYLE: Yes, I will.

THE COURT: Anything further?

MR. KOCHIS: Your Honor, the terms you requested on behalf of Mr. Negus in San Diego regarding their jury selection process, have those arrived?

THE COURT: Let me look in my basket. I haven't -- it may be there. I haven't checked it out. Hold on just a minute.

(Recess.)

THE COURT: Apparently not, Counsel, not yet.

MR. KOCHIS: Fine.

THE COURT: I'll shoot it out to you as soon as I get it.

MR. NEGUS: Okay.

THE COURT: Thank you.

(Whereupon the proceedings were concluded at 1:45 p.m.)