# National Commission on the Future of DNA Evidence PROCEEDINGS Meeting II

June 8, 1998 Renaissance Oak Brook Hotel Oak Brook, Illinois

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# **Agenda**

#### MORNING SESSION

- Welcome and Commission Member Introductions
- Commission Message Board Presentation Dan Tompkins, Senior Writer-Editor National Institute of Justice
- Working Group on Research and Development Update Dr. James Crow, (ret.)
   University of Wisconsin at Madison
   Department of Genetics
- Postconviction Issues Working Group Report Professor Margaret Berger Brooklyn Law School

#### AFTERNOON SESSION

- Presentation by Dr. David Werrett
  Director of Research and DNA Services
  The Forensic Science Service
  United Kingdom
- Statement from Debbie Smith Crime Victim
- CODIS Backlog Elimination Report
   Dr. Paul Ferrara, Chair, Laboratory Funding Working Group
- Questions from the Public and Press

The meeting of the National Commission on the Future of DNA Evidence taken before SANDRA BATTISTA, a notary public of Cook County, Illinois, on the 8th day of June, 1998, at the Renaissance Oak Brook Hotel, 2100 Spring Road, Oak Brook, Illinois.

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#### **APPEARANCES**

#### **CHAIRPERSON**

Chief Justice Shirley S. Abrahamson, J.D., S.J.D.

#### **EXECUTIVE DIRECTOR**

Christopher H. Asplen, AUSA

#### **COMMISSION MEMBERS**

Dr. Dwight D. Adams Jan S. Bashinski George W. Clarke Dr. James Crow Dr. Joseph H. Davis Dr. Paul B. Ferrara Norman Gahn

Dr. Philip Reilly

Judge Ronald S. Reinstein Professor Barry C. Scheck Jeffrey E. Thoma Kathryn M. Turman Judge William Webster James R. Wooley

#### **PRESENTERS**

Professor Margaret Berger Dr. Cecelia Crouse Dr. James Crow Dr. Paul Ferrara Deborah Smith

Dan Tompkins Dr. David Werrett

#### **Welcome and Commission Member Introductions**

JUSTICE ABRAHAMSON: Let's go around the table and introduce ourselves. I'm Shirley Abrahamson. I'm Chief Justice of the Wisconsin Supreme Court and we'll start to my left.

MR. ASPLEN: I'm Chris Asplen. I'm an Assistant United States Attorney in the District of Columbia, but I'm detailed as the Executive Director of the Commission.

MR. ADAMS: Dwight Adams, Chief of the Scientific Analysis Commission of the FBI laboratory.

MR. CLARKE: George Woody Clarke. I'm Deputy District Attorney in San Diego County.

DR. FERRARA: Paul Ferrara. I'm the Director of the Virginia Division of Forensic Sciences.

DR. REILLY: Philip Reilly, President/CEO and attorney.

MR. THOMA: Jeff Thoma, and I'm [a] public defender in Mendocino County, California.

JUDGE WEBSTER: William Webster, attorney, former Director of the FBI, currently Chairman of the Commission for the Advancement of Federal Law Enforcement.

MR. WOOLEY: Jim Wooley, Assistant U.S. Attorney from Cleveland, Ohio.

MS. TURMAN: Kathryn Turman, Chief of the Victim Witness Assistance Unit.

JUSTICE ABRAHAMSON: You'll have to speak up.

MR. SCHECK: Barry Scheck. I'm the Commissioner of Forensic Science in the State of New York, the agency which regulates crime labs.

JUDGE REINSTEIN: I'm Ron Reinstein, Associate Presiding Judge of the Superior Court of Arizona out in Phoenix.

MR. GAHN: Norman Gahn, Assistant District Attorney from Milwaukee County.

DR. DAVIS: I'm Joseph Davis, a medical examiner from Miami, Florida.

MS. BASHINSKI: Jan Bashinski, Chief of the Bureau of Forensic Services, State of California.

DR. CROW: James Crow, Professor of genetics at University of Wisconsin.

JUSTICE ABRAHAMSON: Thank you. We are missing Lloyd Cutler and Terry Gainer, Terry --Terrence Gainer, Terry Hillard and Sheriff Aaron Kennard and Chief Sanders, Michael Smith. Is that right? MR. ASPLEN: That's correct.

JUSTICE ABRAHAMSON: And I want to say that we have with us today representing the Bureau Chief of the Crime Scene Services of the Illinois State Police Dwayne Fullington. Mr. Fullington, thank you for coming.

And then representing Terry Keller is Scott Keanan. Jack Ridges and Jack Buehls, the Chicago Police Department. Will you stand? Thank you for coming very much. And we have Cecelia Crouse of the Palm Beach Sheriff's Office.

I wonder if we could have the others introduce themselves. We'll start with you.

DR. LISA FORMAN: I'm Lisa Forman, the deputy director of the Commission and also program manager of the National Institute of Justice.

(Whereupon, proceedings were inaudible.)

JUSTICE ABRAHAMSON: This is Dave Werrett. And he will be speaking at lunch. But we have to all talk up and you have to remind me.

I just wanted to also tell you that Judge Reinstein has won the James Walsh Outstanding Judge Award from the Arizona Bar Association and was recently appointed as Associate Presiding Judge for the Court of Maricopa County.

JUDGE REINSTEIN: You didn't have to do that.

JUSTICE ABRAHAMSON: Our congratulations and you're blushing.

MR. ASPLEN: Ron made a point of saying he's the second judge who received it who is actually alive at the time.

JUDGE REINSTEIN: Alive and retired.

JUSTICE ABRAHAMSON: Maricopa County is a very famous county across the country because it's doing some very, very interesting things in judicial administration and access to justice. So thank you.

And Kathryn Turman has been appointed Acting Director of the Office for Victims of Crimes in Washington, D.C. Congratulations and best wishes to you.

And Terry Gainer has taken the position of Deputy Chief of the Washington, D.C. Metropolitan Police Department since our last meeting and the Chief is out of town today. So the Deputy is in charge. And so he decided it was best to stay home. So we'll watch the newspapers to see what happened on his watch today. So that's the news from the Commission.

The additional news from the Commission is that we've got the five working task forces at least appointed and two have met. We are going to be hearing from them today.

As we said at the last meeting, these task forces have members appointed thus far. They will --some of them will have additional members added as we proceed where there is a need or desire for that to happen. So these are always task forces in progress, works in progress, not only in the nature of the work they're doing but in their memberships.

Other than that, I don't have anything to report except for the fact that we'll be probably scheduling a meeting in September and so Chris will hand out a September calendar for all of you to mark. So you've got it in your packet, on the left side of your packet. Are they to mark available or unavailable?

MR. ASPLEN: Why don't you mark your available dates since my guess is there will be fewer markings of your available dates than your unavailable dates.

JUSTICE ABRAHAMSON: Give your available dates and we'll give them back to Christopher.

And if you have a preferable place other than your own hometown, we should put that down at the bottom. Is Chicago a good place, New York, Washington, Richmond? That's your own home town. You can't fool me, Paul.

That's it. The only thing is you're going to have to bear with us today because we are going to move around the agenda from the one you received in the mail and we may even have to move things on the agenda which is in your packet too.

One, we are waiting for Professor Berger who is flying in from New York City today so she has been moved to the 10:00 o'clock slot.

# **Commission Message Board Presentation**

Dan Tompkins, Senior Writer-Editor National Institute of Justice

ABRAHAMSON: Now, Mr. Tompkins, Senior Writer and Editor for the NIJ, is the first thing on our agenda. He was going to do a Commission member board presentation.

Before I do that, does anyone want to add anything to the preliminary comments that I just made?

Okay. Well, you're not forever barred. You can add things as we go along.

So we are going to have Mr. Tompkins. I saw Mr. Tompkins last night. He had come in early to set up the equipment but the hotel won't do it until the very day.

So he then did it this morning. And I hope we don't have a Bill Gates moment, but we might. So are you ready? The equipment is great if it works, right?

MR. TOMPKINS: Absolutely.

JUSTICE ABRAHAMSON: Mr. Tompkins.

MR. TOMPKINS: Chris, did you want to say something?

MR. ASPLEN: If I could kind of start this portion of the meeting to give you a little bit of background as to why we are doing what we are doing with Dan today.

As we were kind of talking at NIJ about the Commission's communication and workings, we kind of talked amongst ourselves, Dr. Forman, myself and Laura and Anjali and Dr. Rau.

We talked about the extent to which four days a year is really not a lot of time to talk about issues as significant as the ones we need to deal with.

And we got the idea that there may be a way to further facilitate the discussion that goes on at the meetings after those meetings occur.

Given the fact that this is a Commission on technology, albeit DNA technology, we thought there may be a way to use technology to our advantage in another way and that's the Internet.

So what we did was talk to our people at NIJ to see if we can establish an Internet message board which would be open to the Commission to communicate amongst itself in the various areas that we have established that we need to talk about, the different working groups, et cetera, and the different issues that come up.

This is an experimental project. It is one that NIJ is also looking forward to in that we'd like to see if this is a model that we can use in the future for other deliberating bodies such as this.

So what we have done is we have created a web site, if you will, that is attached to the DNA Commission web site that we have. And what we have done is created an interactive site that will allow us to communicate to Commission members, staff members and working group members by way of posting messages to a message board.

This is not realtime live chat for those of you who know what the Internet chat is. This is the posting of messages periodically which will be probably spiked, if you will, by myself or other Commission members by way of throwing up an issue, saying here is the privacy issue that we talked about at the meeting. Here is the way we handle it in New York, for example. Here is the way we handle it in Maricopa and list things and get people to respond to that.

So what this is is an ideal way to facilitate more communication amongst the Commissioners as we go on. It's a new idea. This is an experiment that we believe can work.

With that little bit of background, I will leave it to Dan who will show us exactly how it will work on the Internet.

MR. TOMPKINS: Thank you, Chris.

Good morning, everybody. It's a pleasure for me to be here. I'm honored in some small way to be able to help with the work that you're doing.

This is -- what you see on the screen is the National Institute of Justice web site. From this web site, you can access the DNA Commission web site.

You'll see that this, I think, gives an indication of the important work that I think due to the NIJ and the Commission's efforts we have from our highlights box a direct link to the first meeting's transcripts.

This is the front page, if you will, of the DNA Commission site. It gives a little bit of background about the Commission and this is a little bit more of the description of this site, the intent of the site on the back.

I'll just show you where the transcripts are from the first meeting. I think the intent also is that the transcripts from this meeting will be on-line as well.

See the choice here for the first meeting transcript, and there is a listing for the public of the Commission membership.

From this site, in this box is the link to what we are calling the DNA Commission forums.

What I want to do is familiarize you a little bit with this site. I think we have tried to design it to be very easy to use and we hope that's the case.

Very soon we will send to each of you through an index card that has the address of this site some maybe three, four simple directions for how to use the site. And we will also send -- we

have logged you in so you each have a user name and password which we'll send to you as well very soon.

MR. ASPLEN: Dan, if I could interrupt for just a second. You said we logged you in. We have a list of everyone's e-mail addresses which is the way we need to do that.

We recognize that some individuals, especially from the FBI or other agencies, may be concerned about security and having their e-mail address hooked into this directly. We recognize that so we will make sure that we talk to everyone individually if you have concerns about any kind of security issues, depending upon what particular e-mail address you gave us to use.

You may have your own personal account. You may have an office account. But please recognize that we are going to talk to you individually about any individual concerns you might have, if there are any. I'm sorry.

MR. TOMPKINS: Think of sort of three tiers for the structure of this form. The top tiers are the forums available. We created one for overall -- the overall work of the Commission.

We have also created forums for -- we will have forums from all of the working groups. We have the first three here right now.

In terms of access to these forums, we are using the same rulings for access from the field electronically that we have gotten for the overall rulings in terms of read access by the public.

The main forum, everyone on the Commission and the working groups will have access to this main forum to comment and read.

MR. ASPLEN: Again if I could interrupt, because of the necessity of these Commission meetings being public pursuant to the Federal Advisory Committee Act, it was determined by our general counsel that this -- that the discussions that occur here may well constitute deliberation, and, as such, are subject to that act and, as such, should be open to the public.

So when Dan says that the public will have read only access, what that means is that anyone in the public or on the Internet will be able to access the discussions on the full Commission forum only.

The working group discussions, however, for the five individual working groups will not have read access. They are not subject to the Federal Advisory Committee Act, and, as such, those will not be open to the public.

What will constitute potential deliberations -- and I say potential deliberations -- for the full Commission, they will be open to the public on that one forum only.

MR. TOMPKINS: Within each of the forums that you saw, you have an option to create a new message. Each new message lists a subject and lists the name of the person that originated that subject.

The subject heading will be at the beginning of any message that is a response to the original message.

The individual messages that constitute the original subject listed becomes a discussion string which is archived and which is displayed so that you can see the entire history of the discussion for a particular subject. That will be on-line.

So the tag that you give a new subject is rather important because that becomes sort of the title of that discussion string so give a little bit of thought to the nature of the title that you give it because that sort of becomes the name of that whole subject.

Chris has -- we have included two subjects here that Chris talked earlier about, sort of spiking the conversation, throwing out issues for discussion as a way to begin the use of this. We can go to that.

To view an existing subject, you click on the subject title. It gives you a little bit of instruction about where you are and there you see this is the initial subject.

Now, in order to respond, very clearly you click on the respond button. Anybody care to articulate a response?

It gives you a menu and this is your field to respond. It's a little box but there's -- that doesn't limit the length of the messages.

One of the features is that whatever sort of a cut and paste function you have in multitasking to word processing to this, you can cut sections of text, bring it in, and paste it onto this.

So if you have done some writings on a particular subject in another forum, you can go do that, do your cut and paste and bring it on. You may want to preface it by saying this was done elsewhere.

Message posted. As you can see, I'm disagreeing with myself. The messages for a particular subject are ordered chronologically with the initial message at the bottom of the page so you can view the entire history of a particular subject area on-line.

As you can see, you can respond to any of the messages in the history of the subject area.

That is the new tool that we have created for you essentially. We at NIJ are very excited about it. We recognize the power of the Internet as a vehicle for dissemination of information.

My role with the National Institute of Justice is with the office of development and communication, and our goal is to disseminate results of research and the other works of the institute. But we recognize also the power of the Internet as a communications tool more than just out, you know. It's a two-way street for communicating.

This is a tool to do that. We hope that this proves useful for you. I will be here all day. If you have questions or if questions come up, I'll try to answer them. If I can't answer them, I'll certainly take them down and I know the people from the technical side that can answer these questions.

MR. ASPLEN: If I could just add, there are several individuals on the Commission who don't have e-mail addresses. You don't use e-mail that much, if at all. That's okay also. We have anticipated that.

And what we will simply do is we will simply print the discussion strings out probably weekly and simply send them to you and you can add your discussion however you'd like. We can do it.

We will also provide you with an Internet account if you would like to get on-line. We'll take care of that also.

So please don't feel like if you're not necessarily someone who is active on the Internet to any great extent, that you're going to be excluded or you're not going to have any input. We'll find a way to make that happen and I don't anticipate that to be a problem at all.

There are a number of questions.

DR. REILLY: Dan, I think this will be very helpful. Just to clarify, is this system passive in a sense that I only find out about new discussion activity if I log in or is there some way to let us know that a new discussion has occurred?

MR. TOMPKINS: Right now it is passive. One of the features that we will have is for responding. You can either respond to the discussion or you can -- will be able to respond directly to a person or message or person who delivered the message.

It is not currently -- it is passive right now so it's incumbent upon --

DR. REILLY: You have to check in or you won't know what's going on.

MR. TOMPKINS: I don't know whether periodically we will want to do a group e-mail to say there's a particular area of discussion that we want you to comment on. That's something that we might be able to do from NIJ.

MS. BASHINSKI: I have two questions. One is a technical question on that string. If you're responding to a particular message, is it clear that you're responding to that message or does your response simply get added chronologically?

MR. TOMPKINS: It does get added chronologically, and unless you put that in the message field and you're responding to a particular point, I don't think there's an indication to add your response to a particular message.

MS. BASHINSKI: One other question. I'm recognizing the problems in opening Pandora's box, but this could be a very useful vehicle for getting reasonable public comment. And you haven't really described if there is a slot where that could be taken.

MR. ASPLEN: Yes. That is a consideration.

And for those of you who are somewhat familiar with the Internet, you're probably familiar with the fact that some of these work very well. Some of them do not by nature of the fact that some of them kind of draw miscellaneous commentary.

However, what we want to do is try this first and use this again as an experiment and get our feet wet with it with an eye towards having an open public forum for public actual impact, not just to read what's going on.

And I think I mentioned at the first meeting that that was something that Dr. Lederberg mentioned at the last DAB meeting. He talked about that idea of soliciting information from the public in this context.

What we want to do, however, is not have that public input really kind of not affected but we don't want it to kind of --

MS. BASHINSKI: Fog the system.

MR. ASPLEN: Exactly. So we are definitely looking at this with an eye toward soliciting active public interest.

MS. BASHINSKI: If you had a particular place where you could put those messages where they wouldn't necessarily appear in that string, I think you'd get some very valuable input.

MR. ASPLEN: That's definitely the next step.

PROFESSOR SCHECK: Can you attach files?

MR. ASPLEN: Dan, I believe we discovered that we can; is that correct? You can paste, right?

MR. TOMPKINS: Right. But that's bringing that text into this medium. Let me check. I don't know the answer to that one. My guess would be no but let me check.

MR. ASPLEN: I know we talked about that initially when we sat down with the computer engineers to design this.

And they said it was going to be difficult to do, but maybe we'll get back and have them work on it.

PROFESSOR SCHECK: I think it would be --

MR. ASPLEN: It would also serve -- from an administrative standpoint from the staff, it would be beneficial also.

DR. DAVIS: What's the difference between attaching a file and attaching a piece of text? What's the difference?

PROFESSOR SCHECK: Attaching the file, if you see an article that's 60 pages long, you can, you know, compress it or you can attach it to a message and see this or see this scientific article that would be relevant to the information.

So you could summarize it in the message and then somebody can download it later. If you put it in the whole message, it's going --

MR. ASPLEN: Now, I don't know if this was clear, but you can also respond directly to individuals; is that correct, Dan?

MR. TOMPKINS: Yes.

MR. ASPLEN: Rather than post things directly to the message board, you can simply respond directly to the sender rather than post it.

MR. TOMPKINS: I can check on the answer to that and get back to you later this morning or this afternoon.

JUSTICE ABRAHAMSON: Is there any further discussion on this message board? I assume that we'll go forward with it. Is there any objection to going forward with this?

Hearing none, it's done.

And would you report back on how it's being used, Chris?

MR. ASPLEN: Sure.

JUSTICE ABRAHAMSON: And then there will be a follow-up as to public access and interaction.

MR. ASPLEN: Yes. I believe that to kind of facilitate this happening, you'll kind of get a number of phone calls from me to talk about making sure we have the right e-mail address that you want to use, if you want to get hooked up on-line if you're not, and to try to facilitate this process along.

I think we are just going to have to work at it and use it and kind of play with it a little bit to really get it running.

# **Working Group on Research and Development Update**

Dr. James Crow, (ret.) University of Wisconsin at Madison Department of Genetics

JUSTICE ABRAHAMSON: The next item on our agenda is working group update, and we are going to start with Jim Crow's group on research and development.

And Jim had several things he wanted to present to the group and we'll hear from two and then Chris will report on the other two.

DR. CROW: The working group on research and development is just getting underway. We have gotten our membership established only this week.

So what I'm having passed out here are a series of questions and points that I have simply wrote out myself with a little help but not much from other people and I have yet to hear any comments.

As I said, we are just getting underway and I really have comments and questions for the group really but I thought I might as well pass them to you people for whatever suggestions that you might have. You may think some of these are out of place. You may think of other things that should be added and either let me know now or send me a message later with your suggestions.

I'd like to go through the things that I've listed here just so you'll have some idea of what I have in mind.

The headings are techniques, databases and statistics, and policy issues.

For techniques, first what improvements of speed, efficiency and accuracy of PCR can be expected? Will improvements result in lower prices or will new advances add to the cost? I'll bet on the latter.

But what will be the impact of the genome project? Will single-nucleotide polymorphisms be useful? I know nothing about this but I read Science and there was an article on that this week.

Will extreme sensitivity using tiny amounts of material lead to confusion? What if somebody in the room sneezes on that particular piece of DNA? With data sensitivity does come problems and it's one that we should address.

Are miniaturization and portability likely to be useful in the near future? Will it be possible to do all the analyses right at the crime scene, for example?

To what extent we'll be getting into identification of animals and plants? I read an account just this week of approaches being discovered by finding that the head he had posted in his den matched the body of an animal that had been killed and the announcement was made that this head was probably one in such and such a number.

What's the database for that population? I have no idea how that population was made. We'll try to find out.

How important will mitochondrial DNA be? Certainly it will be important, but it has its strengths and it also has its limitations and we should discuss those.

There's the question of laboratory accuracy and standards and here there's the jurisdictional question. Is it our job or the DAB's job? I'm happy for one thing so -- for many things but this one in particular now, that the Chairman of the DAB, Joshua Lederberg, is on so he can provide that kind of base.

How closely should technology track the latest scientific advances? I think we have a practical problem here and this is what's useful in the laboratories, working laboratories, is going to necessarily be high, meaning high in state-of-the-art that is being developed. How far behind will it be is something you should try to work on.

How big a problem is there with stray DNA? The sort of thing I mentioned, in finding the technique, the more likely it is it will be relevant that DNA get into the act.

Is mutation a problem? Ordinarily in identification it isn't. It may be in sensitive enough tests and maybe tests of different parts of tissues may reveal mutation. And it certainly is an issue.

And finally after this group, how much of the work is likely to be automated in the future?

On the databases and statistics issues, how large and how representative PCR databases can we expect? They're growing very rapidly now. We'll try to anticipate.

How many ethnic groups will be represented?

Is it feasible to get representative data for American Indians, which always has been and continues to be a problem.

How many more loci are desirable and when does it get to be overkill?

Are different criteria needed for CODIS and for trial use? What I have in mind here is for CODIS, it's going to be important to standardize on a certain number of loci and keep those intact for a reasonable period of time. On the other hand, an individual laboratory ought to be encouraged to develop different directions here.

Is it feasible to have enough loci that ethnic and racial group differences can be ignored? An ideal for this would be each person to be unique. That's too much of an ideal.

But there's one fact about brothers and sisters, siblings, that's not true for any other relationship. And that is that the probability of a match for a brother is one-fourth plus a small amount that comes in whereas all the other matches are calculated from databases.

So one might conceivably ask of a system is it good enough that you can detect this individual in the population of brothers and then you don't have to worry whether it's black, white, oriental or white. I think it's a long time ideal that maybe it should be achieved -- maybe we can talk about achieving it at a reasonable time.

What is the best way to calculate match probabilities for suspects found in a database search? The main -- what I would say highly substantive criticism in the 1996 report comes from Bayesians. Those that deal with this subject are not speaking with one voice on their preferred methods of approach.

And there are those who think that nonuse of the Bayesian method is a cardinal sin there. There are other people who think the Bayesians are totally wrong.

What I'm rather hopeful for is if we can move into a situation where it's not necessary to make this decision or get into this argument. And one way to be just a little bit more elaborate, in our report we gave a procedure for calculation.

The earlier 1992 reports said quite sensibly that if you're going to use the database to find a suspect, you shouldn't make the calculation based on those -- on how you found the suspects. You should make the calculation based on additional data.

We said that's probably impractical and it was impractical. With STR's and with additional loci, it becomes practical so maybe a solution to this problem is to avoid the statistical issues and abide with what the 1992 report says. Anyhow, that's an issue.

How do we deal with mutation which will be important in paternity cases? And I suppose that will continue to be a part of the issues here.

And then do we need better methods, both statistically and analytically, for dealing with mixed samples? Everything is nice if the samples always come from one person.

But with mixtures, all kinds of problems arise.

Fortunately we have on our committee Bruce Weir who incidentally has just co-authored a book that I just got a copy of this week. And he has made a special dealing with mixed samples, that is, the statistical aspects thereof. And I hope we can make better use of that.

As for policy issues, most of these are outside our realm. Should there be a mechanism for correcting scientific misinformation in courts? Could neutral experts be used for highly technical issues? I'm aware of the difficulty defining a neutral expert but I might consider it possible.

If there are impartial experts, who pays for it?

Can we expect DNA to be used increasingly for lesser crimes? That's clearly happening in England and elsewhere and I think it's predictable that it will happen here.

How can extra tests and reviews of earlier convictions be financed? Clearly other committees are considering that question, but I will raise it.

How concerned should we be with noncriminal identification? Identification for people who are killed in an accident, for example, to what extent does our work bear on that issue?

Is it feasible to define uniqueness? Clearly they're going to say this sample came from this individual and can only be given in probabilities. But when does the probability become so small as to constitute uniqueness? Is it possible to define something like this, just is it possible and is it desirable?

Will the courts be likely to accept use of prior probabilities and Bayes' Theorem? I think everybody finds it unsatisfactory to say that all we can say is not whether this -- it's not the probability that these two samples came from the same person, but what the probability is that if they did come from different persons, they would have the same.

That's not a very satisfying statement, but the only way we can make a specific probability statement is by using Bayes' Theorem.

For paternity cases, it's routine to say if the prior probability is such and such, this is the final probability. If it's something else, this is the final probability and give the answer for a range. I don't think that has caught on in the criminal courts.

And finally the question of how should probabilities be presented to the courts and juries? Our committee report suggested the recent research in this area. There's been no great realms from reports from research in such areas, but I still find it desirable to have something like this happen.

This is my thinking for which I accept full responsibility and credit. I welcome your comments and suggestions as to what we should be doing. It's a good time to get comments from you because we haven't done anything yet and that's the best time for anything.

JUSTICE ABRAHAMSON: Gentlemen.

JUDGE REINSTEIN: Dr. Crow, I think the Department of Public Safety in Arizona has developed a database for Navajos.

And also on the issue about plants analysis, we actually had, and I think it's a reported case, identification on a rape case. We had an identification made on a C pod.

DR. CROW: I'm sure we can expect more of that sort of thing.

PROFESSOR SCHECK: You can expect a lot.

One thing I noted, in the members of the working group, I note that you have one critic, Dr. Elizabeth Thompson, merely in the area of statistics.

I would suggest that you also include somebody that has been known to be critical of DNA case work who has a background in molecular biology because I don't think you really have that among this group.

MR. THOMA: I did nominate Dr. Ford.

PROFESSOR SCHECK: Dr. William Shields was somebody that was very good and knows a lot about problems that might --

JUSTICE ABRAHAMSON: Did you get names, addresses, and if they have resumes?

MR. THOMA: I have forwarded it but I will again.

DR. CROW: I know Shields.

MR. THOMA: Dr. Simon Ford from San Francisco.

DR. CROW: I have a concern, Barry, that this group doesn't get so large to become unruly.

PROFESSOR SCHECK: We do need somebody like that, I think, because everybody else here is either part of what I would call a DNA establishment. They're either part of the regulatory bodies. They either are developing the bodies and have a vested interest.

And what you lack here is anybody systematically that has attempted to review case work and they will identify in my judgment many of the most important problems which have to do with stray DNA, increasing sensitivity of the assays, and the dangers of confusing people in the investigatory process. And those people can be very valuable.

DR. FORMAN: Remember that all of these reports will be forwarded to reviewers. So the reports are not going to be standalone reports.

PROFESSOR SCHECK: I understand that, but what I'm suggesting is you want somebody in here that has real experience. As I say, that's helpful.

JUSTICE ABRAHAMSON: Or agree with them.

PROFESSOR SCHECK: And finally, it seems to me that I was wondering if you would include within this the issue of -- be it through identification of -- when you get a biological semen stain from a crime scene, the research that's being done in being able to predict the ethnic group, the race of the individual for investigatory leads, certain characteristics of the donor of the sample. I think that that's something that people looking into --

DR. CROW: I appreciate the question. I thought of that, Barry, and I don't know whether -- how close we are.

PROFESSOR SCHECK: Dr. Weir can tell you something about that.

DR. CROW: Take a sample of DNA. Certainly that time is coming closer.

PROFESSOR SCHECK: What about red hair?

MS. BASHINSKI: In your statement about the impact of the genome project because the more that's known, the more informative the test will be.

DR. CROW: Statisticians have a standard procedure called the discriminant function. That maximizes whatever information you have.

So far that looks pretty useless to me from this standpoint, but it's going to take much. There are now alleles that have quite larger frequencies. They're certainly not 100 percent.

We did think that we needed somebody who is actually involved in case work, whichever side.

JUSTICE ABRAHAMSON: We also considered whether we should put on somebody that will be more sensitive or at least their primary interest may be sensitive to human rights, ethical and other issues.

And the question is whether or not that should be brought in. Someone on the committee, let's have someone else.

DR. REILLY: I have two brief comments. First, I think of particular importance when we are thinking of plant and animal DNA is domestic cats.

And Steve O'Brien, you know, is an expert in cat DNA in Canada in a trial in Canada, but it had to establish a reference database for cats.

Secondly -- and this is just a general comment. I think we should always in our deliberations be extraordinarily sensitive to the notion of mentioning in particular any one ethnic group. I know you meant nothing prejudicial by mentioning American Indians.

But the issue is so sensitive for people. We always have to -- I think it's better to talk generically in formulating questions such as are there any particular groups within society because I'm sure that some people can twist and analyze sentences like that and think about it the wrong way. It's a very sensitive issue.

JUSTICE ABRAHAMSON: In terms of, for example, the animal botany issues, we ought to have a list of people rather than including them within the committee if that would be all right.

DR. CROW: I think we have to trust the committee itself to play some role in this. On this sensitivity issue, one can't help being aware of this and what I said in the middle of this is it's not going to take very long until we can distinguish brothers.

And if so, then I don't care what group the person belongs to. Until that happens though, since there are frequencies in different major groups and subgroups, you have to -- I'm open to suggestions.

JUSTICE ABRAHAMSON: Are there any other comments, questions? Again you're not forever barred and can call and talk to Jim and the other members of this committee.

That's a good start for this group.

Chris, is Margaret here?

MR. ASPLEN: She is here.

JUSTICE ABRAHAMSON: We'll take one minute on the three.

MR. ASPLEN: The crime scene investigation working group is going to be chaired, as you know, by Terry Gainer.

Because of Terry taking the position of Deputy Police Chief, he has been a little busy and in transmission the last couple of months.

I did, however, come to Chicago and meet with Terry about a month ago and we kind of talked about some general ideas and a general direction that he'd like to take that working group.

And it really focuses on a couple of areas, and we are going to give Dr. Forman a break and give us some more microphones so she doesn't have to keep running around doing this.

But to focus on what police departments are doing and more importantly what they are not doing in terms of crime scene investigation and evidence collection, we are going to do that by way of site evaluations in a couple of different areas.

First of all, probably Chicago and Washington, D.C., where we will send the members of the working group to those particular locations and have them get a feel for what's actually going on on a daily basis out on the street.

There's a -- the value of the competence of the first responder on the scene is pretty clear, and it's really one of the most important, if not the most important, steps of the process.

So we want to look at what exactly the police officer who does respond to the scene knows about DNA or what steps they are taking to recognize it and preserve it appropriately.

We'll also look at some other areas, not just urban areas, but we will look at suburban areas so we capture that dynamic also. And then we'll bring in a couple of individuals from the one-man department or one-woman department in the rural areas to talk about the resources that they need both in terms of technology and in terms of training.

And we want to look at the funding issue also in terms of training and how much is being dedicated to officers training for DNA competence, if you will.

The other aspect that we want to look at is the issue of nonsuspect cases. Needless to say, it is a significant dynamic in law enforcement that oftentimes nonsuspect cases are not tested for DNA which ten years ago made some sense from a resource standpoint in that if you didn't have anyone to compare it against, there was no real reason to do DNA testing at that particular time.

However, given the advent of the CODIS system, that logic stands on its head. It's an obvious point that the quickest way to a suspect is now through the use of the databank.

And as we increase the size of the databases, that's going to become even more obvious. So we need to educate police officers and we need to provide the resources, specifically financial resources, from them both from an education standpoint and to have the testing done.

So those are the areas that we are going to concentrate on in crime scene evidence and collection. And again you don't have the members of that group in your packet. You'll have them by the end of the day. We will just need to get a computer up and running and print it out.

As with that group as with the legal issues group, that is simply the core group of individuals that we have to kind of get things going. That group will expand as will the legal issues will expand with names.

The Legal Issues Group is going to be chaired by Michael Smith. Professor Smith and I have had a number of conversations about the direction of that particular group.

One thing that we found or one great dynamic we found in the course of the Commission so far is the interconnected nature of all of the different working groups.

While we have tried to segregate all of these different issues to facilitate discussion on them, we are finding time and time again so many issues interconnect and especially with the legal issues.

We will discuss the privacy issue very specifically and probably first. I know that early on, I had a conversation with Dr. Reilly on that issue and he talked about the importance of getting something out there as quickly -- not as quickly as possible but to address that first because it does affect so many other issues and so many other working groups.

We will discuss discovery issues. We will discuss some other broader issues like, as Dr. Crow mentioned in his presentation, the advisability of court-appointed experts, panels of experts, et cetera.

Clearly that is one trend that's going on in the legal system as the use of court-appointed or independent experts. If you have read the speech that was given by Justice Breyer that kind of indicates that may be a place that we want to take or we may want to help the judicial system get to. So issues like that.

We are open to suggestions on both of those particular working groups, both in terms of subject and continued input in terms of members of those working groups or individuals to come and speak to those working groups to kind of address the concern of these working groups getting too large.

And I understand that we do need -- that we do need dissenting voices as members of the working group, but we also need to recognize that we need to bring those people in, if not as members but also to speak to the working groups to get their input.

So again the legal issues, you'll get a printout of the members who are on that at this time, at this juncture.

I will limit my comments to that so that we can --

# **Postconviction Issues Working Group Report**

Professor Margaret Berger Brooklyn Law School

JUSTICE ABRAHAMSON: So we can move into Professor Berger.

I have read your protocol, and it's just a very, very impressive piece of work. And I think we owe the entire committee and reporter a big thank you for preparing this for the Commission discussion and in a short time. It would be impressive even in a long time.

We have got you on for a half hour and then we have discussion from 10:45 to 12:00. But I leave it to you how you want to present this, whether you want to take it section by section with an overview first or you want to do the whole thing yourself and then leave it open for questions.

I leave that entirely to you and the task force, the work force.

PROFESSOR BERGER: Well, Chief Justice and members of the Commission, I think since this is a fairly small group and we are all sitting around, what I would prefer to do, if it suits you, is to sort of give you an overview of what we've done and what we are planning to do, tell you what we really need some input on, give you sort of an overview of our introductory chapter, and then really do the rest of it on sort of a discussion basis.

Please interrupt me every time I say something to ask a question because I think it will get us through the material most effectively. So I really don't want to talk very long now without interruption.

The format that I guess we see ourselves producing in this first piece of work is something that will start with an introductory chapter of which you have a draft and which I'd like to talk about.

JUSTICE ABRAHAMSON: Can I interrupt you for a moment? All of us have drafts that have dates of June 1 or 3. Are you working off a more -- we'll get that to everybody this afternoon. Essentially I assume they're the same.

PROFESSOR BERGER: Right.

MR. ASPLEN: The victim protocol is not the most recent version of that. You'll have that by this afternoon.

PROFESSOR BERGER: I assume my secretary can just fax it.

So the introductory chapter, you have a draft of. There will be a Chapter 2 which you do not as yet have a draft of which will be a brief overview of the science of DNA, including a brief description of the various techniques that laboratories use at the moment and a glimpse of what the future is likely to bring.

And the working group has seen really sort of an outline of that and I gather that it's well on its way and we probably can send it out in a matter of weeks.

Then what we see are the various protocols for which you have the prosecution, the defense, the victim's advocate and the laboratory and you have drafts of those.

We also envision some appendixes, for instance, an appendix listing organizations that could be contacted for assistance, perhaps a statutory appendix. Some representative legislation in the field at the moment affects some of what's going on, some sample letters perhaps that can be sent out.

You see references to those in the protocol such as requests for information, a preservation letter, perhaps samples of motions that people might need to bring in connection with various steps in a post-conviction proceeding.

And if there's anything else that anybody thinks ought to be in such a special appendix, please tell us.

Now, on the drafts that you have received, these aren't first drafts. These are really drafts that have been discussed at a number of meetings of the working group and that have also been revised in light of sort of telephone conversations, e-mail exchanges, and whatnot.

But they're certainly not final drafts. We know that they're not entirely consistent in language. We know that they're not entirely consistent in sort of headings that need to match.

But I think we would envision them as fairly final in terms of what we think the substance of them should be, and we certainly want feedback very much with regard to anything that people think has to be changed with regard to that.

So in terms of what the working group sees that it has to do, obviously we have to finalize these protocols. We have to get Chapter 2 put together. We have to put the appendices together, and we would also like to put together a package of possible -- of recommendations to the Commission as to possible uniform legislation.

We indicated some of what might be in such a package in the back of the introductory chapter. I'll get to that and talk about the chapter. But certainly again -- I think it's on Page 9.

But certainly if there's anything else that anybody would like us to contemplate incorporating in such a package, we'd be very interested in that, and, of course, anything else that the Commission would direct us to do.

What I'd like to turn to is really work our way a little through the introductory chapter. Before that, maybe there's one point I'd like to mention, and that is that I keep using the word protocols as you'll see when you get what is the revised victim's protocol.

That really has the word guidelines on it, and one issue that you might consider is should we use the word protocol or should we use the word guideline. Maybe guidelines is more user friendly in terms of some of the people who might use this term, inmates, the family, the victims, their families in terms of plain English, not one of our more complex issues but one on which we'd like some guidance.

And for now I'll keep using the word protocols, but I think it's an issue that should be decided.

Now, I'm going to talk about the introduction, and when I start talking about the different hierarchies of cases, which I'll get to in a minute, I'd like you to interrupt me with any questions.

When we were looking at the protocols which were drafted first, the working group decided that it would be helpful to the reader to make a few points that sort of bear on all of the protocols, both as an introduction to this work and as information needed to understand the protocols.

So we have, as you can see, a very brief background discussion of the history of DNA.

By the way, some of the underlining and red lining really was supposed to have been taken out. It was just there as drafts were being passed around so that people could see what was being done in different drafts. It really has nothing to do with anything at this point.

Anyway, you can see that there's a very brief discussion also about the establishment of the Commission and the working group on post-conviction issues and why this working group is on a fast track.

Maybe I should stop at this point and just ask if anyone thinks that more needs to be added to this discussion on Pages 1 and 2?

Just overall background. As I said, there really will be a scientific chapter so I don't think there's much.

DR. REILLY: One question I have is do your plans include victims?

PROFESSOR MARGARET BERGER: Certainly something we could --

DR. REILLY: I think it could be hard to read in the current form for the nonexpert of the victims' families.

PROFESSOR BERGER: Certainly something we can do and we have a guide, the NRC report.

DR. CROW: Will this report stand on its own and be published or does it wait for something --

MR. ASPLEN: It does stand on its own. Our thought was to not wait until the full Commission report. I think the material is too important for that.

And it's also not just a standalone as a compilation of protocols, but we could also see separating the protocols out, for example, for prosecutors to send a sample of the prosecutorial protocol to make that available to them.

Although I think it's fair to say that to really have a good understanding of the dynamic of the entire post-conviction issue, I think it's important whoever you are in the system to read all of that.

But we may facilitate a little bit better utilization if we do break some of them out and make them available as individual standalones.

DR. REILLY: I wondered -- for a point of clarification, I have no trouble with the speed of getting it out but does it, therefore, come through the Commission? Is there a vote on it?

MR. ASPLEN: Yes, yes.

DR. REILLY: Before we all read the final product and give an --

MR. ASPLEN: Our --

PROFESSOR SCHECK: That's why we want input.

MR. ASPLEN: Our goal today for that working group is to essentially get enough input from the Commission today so that over the summer, that working group can incorporate all that so for the September meeting, we have a final draft that can be voted on in terms of the language of the protocols themselves.

There may be tangential issues that we don't necessarily come to an agreement on or vote on in other areas, but in terms of the language of the protocols, we'd like a final vote in September.

JUSTICE ABRAHAMSON: Does the working group see sending out drafts to various interested groups like the National Association of Attorneys General, district attorneys or the public defenders' group?

I'm just mentioning the American Bar Association standards for prosecution and defense. These are the ones that just come to mind, all of whom may have some good suggestions.

It would seem to me the time to get them is before it's finalized by the Commission. But I wanted to know if you considered that and talked about it.

PROFESSOR BERGER: We had not.

JUSTICE ABRAHAMSON: And then, you know, I hadn't thought about it, but another group meeting might be the American Bar Association group that deals with the Code of Professional Responsibility.

I don't know if you have thought about whether any of these protocols/guidelines have any effect on or relationship to the code.

DR. REILLY: Actually I'd like to second that suggestion. In my experience in the first NIC committee, to the extent that we relied on the process of peer review, that is, sending out a very late draft for commentary by obvious stakeholders, I think it has the effect of investing in those stakeholders and gives you an opportunity to read the article to catch small oversights or things you haven't thought about.

I think in the end, it makes for a more widely acceptable product.

JUSTICE ABRAHAMSON: That was more of a question to the group because we do have broad representation on it nevertheless.

MR. GAHN: Chief Justice, I think it's an excellent idea when I read the protocol for prosecutors. There are a number of things involved that put me in an ethical dilemma, how involved I get with an inmate that is contacting me.

As the protocol reads, I should treat the request from the inmate the same as I would from Barry Scheck. And I don't think it should be identical. I as a prosecutor can ethically address --

JUSTICE ABRAHAMSON: I didn't intend to eliminate national groups on victims like -- is it NOVA?

MS. TURMAN: NOVA.

JUSTICE ABRAHAMSON: And there are others. The acronyms don't trip off my tongue as easily. But I meant to include all of that and I meant to include any laboratory groups. I know least about the lab guidelines and the same thing about the judges.

Again I don't know whether the American Trial Judges is the right group or the ABA.

JUDGE REINSTEIN: National Center for State Courts.

JUSTICE ABRAHAMSON: National Center for State Courts. If we are going to do it, we should do it as widely as we can. But there's still an if in there. I leave that to the Commission.

MS. BASHINSKI: Just a question. Are we precluded as Commission members from making things appropriately stamped, stamped draft available to organizations that we want to? That would be my natural inclination. But I wouldn't want to do that if it wasn't appropriate.

JUSTICE ABRAHAMSON: Do you have any suggestions?

PROFESSOR BERGER: I think it would be helpful. I think the only issue that comes up is the timing issue. How long can you give people to respond if this is supposed to be on such a fast track?

MS. BASHINSKI: What I'm saying, for example, with respect to the laboratory people, between Paul and Dwight and I, we can find people to quickly comment as long as it's appropriate for us to do that.

JUSTICE ABRAHAMSON: This is an open public meeting and everything that comes in here is open to the public. Chris.

MR. ASPLEN: Yes. And you may remember that at our first meeting, we asked you not just for nominations for the different working groups but we also gave you separate sheets for peer review and we didn't talk about it in the context of our meeting but it was from an NIJ staff standpoint anticipated.

That's exactly why at the first meeting you received those lists of who should we get to review these things. So that was part of the process that we plan on engaging in.

But the issue of can we take things appropriately stamped draft, I think that would be a good idea. That will also help the timing issue.

JUSTICE ABRAHAMSON: So I think every page, we must have a big draft stamp.

MR. ASPLEN: We bought a new draft stamp at NIJ just a couple of weeks ago in anticipation.

JUDGE REINSTEIN: Would I be correct in assuming the stamp would not be on the message board?

MR. ASPLEN: If we can find a way to put files -- if we can find a way to get data files on there, we may be able to do that.

MR. TOMPKINS: It may be that the message board isn't -- somewhere else on the site may be a more appropriate way to do that.

MR. ASPLEN: It may be easier to put it on another part of the message board.

MS. BASHINSKI: I have another comment. You asked for feedback on the terms protocols and guidelines.

My preference would be for guidelines simply because protocol implies a more rigid standard than I think you want to imply in this document. That's my personal preference.

PROFESSOR SCHECK: I feel like a deja vu. I just managed to get through something --

JUSTICE ABRAHAMSON: Please.

PROFESSOR SCHECK: I just managed to get something through the Criminal Lawyers Organization about ethical considerations or television commentators.

One of the main reasons that the first draft was voted down was it was called guidelines. And it may just be that defense lawyers don't like guidelines from the sentencing guidelines, but I think it may be that to other professionals, guidelines is a word that sometimes scares the hell out of people because if you violate the guidelines, then you're in some kind of professional trouble.

I guess the word protocols, I like just because of the scientific --

MS. BASHINSKI: Speaking from the other side of the coin, I would feel a lot more uncomfortable violating a protocol than I would a guideline.

JUSTICE ABRAHAMSON: Maybe we need a third word.

MR. THOMA: Recommendations.

JUSTICE ABRAHAMSON: Okay. Recommendations. Think of another because of both of these -- we might need something else.

MR. ASPLEN: To follow up on the comment about whether or not we can post them on the web, what we may be able to do is post them on a web site and invite written comment that can be sent to the office, to our office in Washington.

We could then take them and that may be the easiest -- the quickest way to facilitate that.

PROFESSOR BERGER: Though I think that's somewhat different than sending them to organizations.

MR. ASPLEN: Agreed. We would do that in conjunction with that.

MS. BASHINSKI: We'd probably do both.

JUSTICE ABRAHAMSON: These are general comments and I get a sense to try and find a more neutral word than either guidelines or protocols. Maybe recommendations.

JUDGE WEBSTER: Can we use principles?

JUSTICE ABRAHAMSON: Principles may be one.

And the second issue which I think is a consensus is that this should be widely circulated as a draft asking for comments and do that both to organizations but directed to people in the organization and that each Commission member feel free to communicate with and send the drafts, probably not this one but probably the next one, I would think, around for comment.

PROFESSOR BERGER: Another possibility might be, because this is also a deja vu thing, guidelines, protocols with the Federal Judicial Center which put out something on scientific evidence that started out as protocols and turned into a reference guide.

JUSTICE ABRAHAMSON: Reference guide. Anyway some concept.

MR.THOMA: With regard to reviewing, do we know when we might get a further draft because I was just thinking timewise as far as we have meetings about every month, our board of directors?

JUSTICE ABRAHAMSON: Do you think we can make it in a month?

PROFESSOR BERGER: Chris, you haven't scheduled a meeting.

MR. ASPLEN: We will have a meeting in the middle of July that we'll schedule by the end of today which if we can incorporate comments from today's meeting in the middle of July, get them out to Commissioners by the beginning of August, it will give us hopefully a month's worth of time until --

JUSTICE ABRAHAMSON: And August is generally a bad month in terms of vacations. So we may have to look at that so there's enough commentary by the time we get into our meeting in September. So we'll have to plan for that.

Thank you for calling it to our attention because I think the commentary is terribly important for, one, the Commission's information and the work force as well as it seems to me that it could be important to advise the Attorney General of standard problems that are foreseeable.

Shall we proceed?

PROFESSOR SCHECK: Are you going on to the next one?

JUSTICE ABRAHAMSON: Yes, we are going on to the next one.

I think what we'll do is take a quick break before we go into the details and then we'll come back promptly at 10:45 and continue that discussion and we will come back again at 2:45 for this discussion. Okay.

(A break was taken.)

PROFESSOR BERGER: We are gathered again and we got to Page 2, I think.

The next point on Page 3 is really something that I think all the members of the working group thought was extremely important but does raise some of the ethical issues that were mentioned before, which is that a post-conviction proceeding is not a typical adversarial proceeding and that one needs cooperation between the defense and prosecution in a way that does not ordinarily occur at a trial stage.

And we also have to remember the surviving victims and their families and that raises another level of concern that has to be taken into account.

So that's just this little material on Page 3. I don't know if anyone has any comments about that.

JUSTICE ABRAHAMSON: I have one comment and that is that the concept of the prosecutor as an officer of justice is fairly well accepted, I think. But it doesn't explain why defense counsel is so cooperative here.

I mean I can understand it should be. They too are officers of justice, but they have a responsibility to their client which their client wants out or off. So I think that may have to be explained in terms of collaboration and again the ethical standards here of both the prosecutor and defense counsel. I don't know if it bothered anybody else.

PROFESSOR SCHECK: Part of the thinking here is that first of all in the post-conviction context, as we'll get on in the next page, it's really the rabbit under the hat. In most jurisdictions in this country, the defense has no power. You're not even allowed into court, so to a large degree, you're dependent on the good graces of the prosecutor and the judge. That's Number 1.

Number 2, and probably more importantly, when you're raising a claim of actual innocence, you are perhaps in somewhat of a different position. In other words, when it comes to the issue, and that was the key one as far as we were concerned, when it comes to the issue of whether or not DNA test results on old evidence is going to be disclosed, for all practical purposes, it seemed to us and it has been the policy in the industry that we are going to make those results available because if you're going in and claiming actual innocence, it's not the same as pretrial where you might have a right to go out under the sixth amendment, have testing done.

If it comes back and incriminates the client, then, you know, you can keep those secret in some jurisdictions.

When you're in a post-conviction setting, as long as you tell the client up-front, look, if these results come up to incriminate you, there's certainly deleterious consequences for you in terms of executive clemency parole.

We are only interested in innocence and that is the primary point. And if the person has other issues, for example, on appeal, then that's got to be made clear to the client right away.

PROFESSOR BERGER: My suggestion is the question is should some of these considerations be spelled out but that's my only question.

Then on Page 4 comes our hierarchy of cases, and here we really want your comments on both the organization and the examples that are given. This hierarchy is really central because these categories are then incorporated into the protocols and numerous consequences flow from how a case is categorized.

This is really a principal organizational mechanism. So I'd like to take you through the different categories and the examples.

And please tell me whether you think the category is properly defined, clarity of language, whether the examples are appropriate, whether more examples are needed and also whether the Commission agrees with the consequences that at times are spelled out as flowing from these different categories and whether anything has to be added or subtracted.

So turning to Category 1, this is really the exoneration category. We are attempting to define here the case in which a favorable result demonstrates innocence, actual innocence.

And there are two conditions that have to be met for this category. There has to be a crime sample evidence available and sufficient for DNA testing or retesting.

And, secondly, the results have to support this one conclusion that the petitioner is innocent.

And you can see, we have a couple of examples here. We have both a homicide example and a rape case example because we thought that those were the two most important categories certainly to deal with.

You have two Example 2's. There's some editing that didn't quite work. One of them should come out and we can discuss which ones.

And that Example 2 is an example of the situation where exoneration is a possibility but may depend on additional evidence first having to be produced whereas the others really will depend simply on what is available.

MS. BASHINSKI: I would go to Example 3. We are talking about all the examples because I think that would -- that one also requires additional evidence.

You're talking about DNA testing excluding the petitioner as the source of blood stains but you don't really talk about what you have to know about those blood stains that lets you know that they are absolutely from the perpetrator of the crime.

So if you're going to use this example, I think you need to add some specifics. There's a knife that was used. There's a trail of blood going out and the blood smears on the window as the person exited, something because otherwise this becomes an inconclusive.

PROFESSOR BERGER: That's what I attempted to do with my second sentence in there. But if you think that it needs more specific --

MR. THOMA: Putting any blood stains as opposed to the blood stains will do it.

PROFESSOR BERGER: Where?

MR. THOMA: DNA testing the petitioner as a source of any blood stains.

MS. BASHINSKI: You still don't know that the stains are there as a result of or related to the crime unless there's something about those stains that they form a blood trail.

You can have somebody with a bloody nose that lived in the house and threw tissue in the wastebasket or something and have it totally unrelated to the crime.

So you need a scenario -- I mean we don't need to decide what it is now but you need to define the scenario so narrowly so that it's very clear that that blood absolutely came from the person who committed the crime.

PROFESSOR SCHECK: Would it assist if we indicated the prosecution's theory at trial that the blood --

MS. BASHINSKI: No.

MR. THOMA: The basis for an opinion and a conviction.

DR. REILLY: Isn't the goal to find out what happened?

MS. BASHINSKI: We are after actual innocence as opposed to anybody's theory.

JUDGE REINSTEIN: One of the concerns that we had and one of the suggestions ultimately is on model legislation and we were concerned that in some states -- and I think we heard James talk about a case in Texas and also about a case in Virginia where there's time bars and you can't get in with newly discovered evidence to the court to petition potential leave.

You can only go for petition for executive clemency and I think the case that James talked about and Barry mentioned some other one where people were actually in custody after both parties agreed to the exoneration for up to nine months or so.

PROFESSOR SCHECK: Right.

JUDGE REINSTEIN: So that's one of the suggestions that we had regarding model legislation as to this particular category of cases, that people don't stay in custody for these long periods of time but everybody agrees that there's exoneration.

PROFESSOR BERGER: Any other comments on Category 1 or do you think we need more examples or do you think that these three will do it if we change Example 3 to be more fact specific?

MS. BASHINSKI: I think you might want to consider keeping both of these Example 2's. The reason I say that is when you have multiple assailants versus when you have women with the consensual sexual partner, these are two very common incidents and they are very common.

And you may just want to leave them in because if this is going to be read by families and so forth, they need to understand how that situation relates to their particular case.

PROFESSOR BERGER: And maybe we'll point that out, the multiple assailants versus the consensual case. Combine issues.

MS. BASHINSKI: You can combine them in one example, but I would leave them both.

PROFESSOR BERGER: All right. Then let me go on to Category 2. And these are troublesome cases because these are cases where reasonable persons, reasonable prosecutors and reasonable defense counsel and judges perhaps might simply disagree on what the evidence in this case proves.

And we wanted to show that there were different kinds of issues that arise with regard to these kinds of cases.

Certainly results, favorable results, would be helpful to the petitioner in this kind of case. But these are not cases in which the favorable result would mean necessary innocence.

We have also included in this category cases where there might be disagreements as to whether DNA testing should be permitted at all and also who should pay for the testing.

I think if we look at the examples, we can see the kinds of different situations that we are talking about.

Example 4 is one of a myriad of different kinds of cases where getting a favorable result is just not going to be exonerative.

This is a situation where the prosecution keeps saying at trial that this bloody shirt was found at the defendant's home and that the blood matches the victim.

MR. THOMA: Margaret, with regard to Category 2, we have discussion about the brief testing of a decision being made by a judicial officer.

It seems if that's going to be the case and if an indigent defendant doesn't have counsel, it would seem a good recommendation to have that person have counsel, especially if the judicial officer is going to make the decision.

Obviously the prosecution is going to have an attorney on their behalf and certainly the person might have appellate or habeas counsel, but if they do not, they're going to have to have judicial officers and going to make a -- necessarily have all the information if this person is in custody and not before the court.

PROFESSOR BERGER: Okay. I assume that that probably should be, you know, reflected in the protocols as well. But maybe we should put a cross-reference here to situations like this. It's essential to make sure that defense counsel is --

MR. THOMA: I'll post some suggested wording.

JUSTICE ABRAHAMSON: If it's a Category 1 case and the defendant can't afford to pay for it, does it become a Category 2 case? Is that what that language means or does it always stay Category 1?

PROFESSOR SCHECK: No. I think the concept here to reveal it is that if you look at the recommendation that Judge Reinstein was pointing out on Page 9 which is that what the committee, I think, agreed upon is that there's going to be a category of cases where prosecutors and defense counsel and the judge are going to be able to look at the evidence and say, look, a DNA test is going to be done.

And those kinds of cases we believe that, Number 1, the statute of limitations in a jurisdiction should not be barred. That's one of the key issues that we need confirmation from this group about because if we are all in agreement on that as we were in the working group, then that is a very substantial step because in 33 jurisdictions in this country, there is a form of a time bar that is six months or less.

Now, there's some times in interests of justice there are loopholes within them, but for the most part you're time barred. So that is a critical recommendation. We have a category of cases that people would agree that, A, the statute of limitations should be waived and, B, that the testing should be at state expense.

Category 2 is cases where people disagree about it and it really is almost self-defining because the moment the prosecutor and/or judge says, well, you know, counsel for the defense or petitioner, we are not so sure that this necessarily means you're innocent; it's helpful but we are not so sure it means you're going to be innocent if there's a favorable result, then all of a sudden we sort of felt you can't necessarily say that the judge is going to order state testing and state expense.

The judge might. The judge might not. And we didn't necessarily want to say that it should be done at state expense. It should be by the petitioner. So that's sort of the reason why.

MR. WOOLEY: I have a question. Is there any thinking regarding the difference between somebody who pleaded guilty and somebody who went to trial because it certainly isn't reflected in the language as I understand it, as I read it?

PROFESSOR BERGER: We have not done anything with that.

JUSTICE ABRAHAMSON: What do you think?

MR. WOOLEY: It seems to me that there should be -- at a minimum if you assume that all this is the right thing to do and try to categorize these cases, somebody who pleaded guilty, stood up in court and admitted that the factual basis for his guilt of his offense should be on different footing.

MR. THOMA: In most cases, that might be so but actually it should be a case by case analysis. A person could be literally in court with ineffective assistance, counsel saying literally I'm not prepared; you have to do this.

MR. WOOLEY: But, Jeff, you're talking about making a systematic approach to certain types of cases but then saying when it's case by case, we can just look at this.

But you want to make a general rule about the statute of limitations when in fact on a case by case basis, the prosecutor can agree to waive the time issue. So we can leave that on a case by case basis as well.

If you're going to categorize cases based on whether we should be spending the time and the resources to give people access in a post-conviction setting, prosecutor's offices are flooded by post-conviction claims for relief based on all kinds of grounds right now.

And one of the things the court will look at is did the man stand up in court and admit his factual guilt at the time of the plea, and it seems to me that would be an important factor.

JUSTICE ABRAHAMSON: You might look at no contest too.

MR. WOOLEY: That's right, but it has to be in the equation. If the guy takes an Alford plea and says I didn't do it, but if the bargain is too good to refuse, that's a different thing.

PROFESSOR BERGER: Would you say it should be an absolute bar in all cases or are you saying it should be a strong showing of --

JUDGE WEBSTER: Wouldn't Stone B. Powell dictate the framework for the motion and wouldn't that guide you on where you go next?

MR. WOOLEY: If I knew what that case was, I'd have a good answer. I don't know the case you're referring to, but if the import of your question is doesn't the general framework for looking at claims for post-conviction relief maybe deal with the situation, my instinct is yes. I generally think yes.

JUSTICE ABRAHAMSON: It seems to me the question is whether or not the --

PROFESSOR SCHECK: How about -- I think what you say makes certainly sense. But wouldn't that make it just a Category 2 case? In other words, if the defendant pled guilty, then that's a factor in scrutinizing as to whether or not testing should be permitted because there has to be an explanation as to the factual basis as a purely practical matter.

This is one of the reasons we didn't go into it in detail. There had been comparatively few cases. I mean there are extraordinarily few cases where people who pleaded guilty asked for this assistance.

There have, however, been some exonerations on guilty plea cases that are quite spectacular. Usually these are cases that involve people that are mentally disabled who wind up pleading guilty.

The most famous among them is the Spencer case in Virginia where there was a guy who pled guilty and was found that Spencer had actually arranged the --

MR. CLARKE: David Baskas.

PROFESSOR SCHECK: So as a practical matter, we didn't think it was such a big deal. I agree with you. Maybe we can put it in Category 2.

JUSTICE ABRAHAMSON: Why don't you see if Category 2 or some other place --

PROFESSOR BERGER: We have an analogous thing on Page 9, jumping ahead which is that we say that ordinarily, when there's been a claim of self-defense, a homicide or consent of rape, that means this is a frivolous claim.

But we stuck in as a caveat that there might be instances where there might be a claim that that was coerced and maybe we should put -- and, therefore, this might become a category and deal with that the same way with you're guilty and not guilty and say there may be cases. It might be a Category 2 situation.

Anyway, so we have one example of an instance where with our bloody shirt found at the defendant's home, where if the blood turns out not to be the victim's, there's really going to have to be an assessment as to how helpful that is to the defendant and that is in large measure going to depend on really how that evidence was used at trial and what other evidence there is in the case.

This really is sort of the main thing that the prosecution was relying on except maybe for some controverted evidence. I don't know, an alibi that didn't shake out, whatever.

But this is going to be a case scenario where people may well disagree on what that favorable finding means in light of this.

Now, I don't know if you think that we need to have other examples like that or this is just good enough to stand in for all those kinds of cases where a favorable finding does not mean innocence.

MR. THOMA: I think Jan made a good point and leaving it this way would be a pretty good example.

PROFESSOR BERGER: Now, our Example 5 is really a very different kind of case and one that we stuck in because this is something that we discussed. And we are a big group and I think we really need some input from the Commission which is that we may have someone who is incarcerated.

There is nothing. No DNA testing will have anything to do with what he's there for at the moment.

But part of why he's there or at least has the sentence that he has is because there was a prior conviction that hinged on some evidence which could now be challenged with DNA testing. And there are a whole slew of different ways in which that prior conviction might have been used.

It may have been used simply in terms of sentencing which now with three-strikes-you're-out convictions may really play quite a role.

But it also might have been used in an evidentiary fashion for impeachment or even more subtly as a threat of impeachment, preventing the defendant in that case from taking the stand, where I suppose you have a very speculative issue as to whether it would have made a difference if he had testified with regard to a conviction in the sentence that he got or perhaps it could have come in as substantive proof.

And in federal courts we have a couple of new evidentiary rules that allow in all evidence of prior sexual assaults without limitations that are ordinarily imposed by character evidence. And a couple of states are beginning to have rules like that or it could have come in as prior crimes evidence.

In other words, there's some way in which that prior conviction came in. Is this something that should be part of what we are interested in, as giving a person who has had such a conviction a chance at that kind of underlying conviction?

DR. FERRARA: Two points occur to me. One right from the start, we are talking about biological evidence being irrelevant in this particular case so it raises the question, well, is it necessary in this particular document and, two, aren't we really talking about not this case but going back to the original case as being one of the free existing examples and treating that by the other examples?

MR. THOMA: I think we are, Paul, looking at the prior case, the previous case. However, there are enough of these types of cases out there where you have a present context to a case even though it's the prior that may double or sometimes triple or worsen the sentence that somebody is committed to.

So I think this is an example that is at least prevalent enough that it might want to stand on its own even though you're right. We are talking about the previous case.

MR. WOOLEY: You're talking about purely a collateral attack in that sense then?

PROFESSOR BERGER: Yes, really a collateral attack, and that may be at times very speculative.

Obviously if the prior conviction was used for impeachment, it's a much more speculative result probably than if it added 15 years to its current sentence.

MR. CLARKE: So we're talking about somebody who is tried by a jury for the first crime and lost and now is tried by a jury for the second crime and lost again.

That's a fairly narrow area when you narrow it down to now trial and now we have a two time trial which now we are getting really narrow.

PROFESSOR BERGER: I suppose the case for which he's presently incarcerated could be a guilty plea, but adding into the consequences of that guilty plea is the prior conviction.

MR. CLARKE: Presumably, at least in the majority of guilty pleas that occur at the trial will be an admission of guilt as opposed to -- we call it a Les plea in California but there are different --

MR. THOMA: Alford in California.

MR. CLARKE: But we are really --

PROFESSOR BERGER: We are really concerned with the -- we are not concerned -- we are concerned with the present crime. Certainly we are talking about impeachment. There's been a trial, but if we are talking about the sentencing situation, we really are only talking about the impact of the previous case.

JUSTICE ABRAHAMSON: The example doesn't say a jury trial or trial. It doesn't say.

PROFESSOR BERGER: No.

JUSTICE ABRAHAMSON: Do you want it to?

PROFESSOR BERGER: We should branch and consider that a little more.

MR. CLARKE: We shouldn't lose sight of that judicial confession.

JUSTICE ABRAHAMSON: I don't see it if that's your concern which is a similar one as the one you expressed before.

MR. THOMA: Well, right in between there, there's a case that I just did in the United States Supreme Court, California, which is literally stipulating to the factors of a prior conviction, reversed for insufficiency of the evidence. It literally was not a jury trial. It wasn't a court trial.

Just stipulated to it and then the reviewing court found that there wasn't sufficient evidence. So there are a lot of different things we might want to take into consideration.

That decision is going to come out sometime this month. We argued it on April 28th so it might be helpful and I'll keep you informed about what happens. It has to come out by the end of June because that report stops issuing opinions.

PROFESSOR SCHECK: I'm sort of confused by this. I think in this category, we had -- if you look at 6, here is somebody that completed the sentence, is out on the street, wants to challenge it.

But in Category 5, put aside the instances where a prior act is used in the current case to convict somebody. Let's look at the three-strikes-you're-out example and take the hypothetical that the claimant has pled guilty to Felony Number 3 that had nothing to do with biological evidence but

is claiming that conviction one or two turned on biological evidence and he's innocent. That's the case we are trying to embrace here.

MR. WOOLEY: But what happens is there's a ton of those. Everybody -- three strikes and you're out is the rage. This is a pure collateral attack and there's a discussion of -- the courts clearly are very reluctant to be expanding these types of things except for Gideon versus Wainwright, right to counsel types challenges.

The Supreme Court said you can't collaterally attack prior convictions used to enhance sentencing. You have to go back to the people who convicted you and get your relief.

PROFESSOR SCHECK: Unfortunately we are not clear here. That's what we are talking about. We are talking about not -- it would be a two-step process.

The defendant is coming in saying I want to look at Conviction Number 2. The biological evidence convicted me. I went to trial. I was convicted.

Now, it would ordinarily be a Category 1 case. This is what we had in mind. It would ordinarily be a Category 1 case.

But somebody would come in and say for policy reasons, we don't want you to treat it as a Category 1 case because he's already doing time on another unrelated case.

JUDGE WEBSTER: Isn't it true that he had an opportunity to raise this on -- after Conviction Number 2?

PROFESSOR SCHECK: Probably by definition, no, in the sense that the DNA testing that the claimant wants to use was probably not available.

JUDGE WEBSTER: Are we dealing with that as a separate problem or is it involved in each of these categories, that it wasn't available?

MR. WOOLEY: That's a good point.

JUDGE WEBSTER: This is for the future, isn't it?

MR. WOOLEY: That's a good point. It's 1998. It's been available since 1987. Did the defendant at the time have an option? Was it available? What's the date of the conviction?

JUSTICE ABRAHAMSON: The reason you have it in Category 2, if I understand it, is that it's not going to affect that he's going to sit in prison anyhow so you would not put on the top of your list those who would get it. That's the point.

So you were only doing it because it's for lack of a better word collateral.

JUDGE REINSTEIN: If the defendant's family could afford the test, then I think there was a consensus that, go ahead, you'll probably get the test done. And then if it turned out to be that it amounted to exoneration, then he could come in on post-conviction relief and look at that past conviction.

The issue is whether or not this is one that the state should pay. On the first one, we all had the consensus that the state would pay on Category 1.

JUSTICE ABRAHAMSON: That goes back to my original question, that if nobody pays moves this from Category 1 to something else. So I think you ought to think about that as to whether ability to pay becomes the cutting --

PROFESSOR BERGER: I think this example really is one of if you have scarce resources, where does this kind of a person fit in who is in jail, in prison at the moment for something else he did either by guilty plea or trial. Is that person in the same situation as somebody who the only bar to his getting out is the very case in which the DNA testing --

DR. REILLY: My lack of -- I was deeply troubled in reading the document where the ability to pay could be a critical factor in introducing evidence that might, looking at Page 8 of the prosecutor's G2, or could be exonerated but not definitely so.

I can't believe that a thousand dollars could stand between introduction of evidence that might truly -- here is my naive take, but I would be very reluctant to sign a report that said that. I don't think that that's justice.

JUSTICE ABRAHAMSON: I think you ought to think about that and explain what the ramifications are.

DR. REILLY: It's important enough that it might exonerate, then payment should not be an issue. And I think the cost of it should become less of an issue.

JUSTICE ABRAHAMSON: These are the conditions. Think about expanding the discussion so others who read this draft can understand why the decisions were made.

DR. REILLY: I might add I think the report would look very bad in the eyes of many people if it said that.

PROFESSOR BERGER: I guess that raises another issue which I thought about which is would it be helpful to put in some real legal discussion with regard to this in terms of, you know, Supreme Court cases or whether examples from jurisdictions -- maybe not right in this discussion but with, you know, footnotes in the back or something because I think here we have some Supreme Court jurisprudence on things like when is an indigent entitled to an expert?

JUDGE WEBSTER: We sure do.

PROFESSOR BERGER: And I'm not sure whether the way it's just expressed --

JUDGE WEBSTER: The years I spent on the bench was trying to bring this under control and now it appears that the argument is to open it up again on an if-come basis. So it's do it and see what happens.

That's why I raise the question in that example of a person who had the opportunity to erase his post conviction. I think the pure sentence of Stone B. Powell and checking off Gusimani, the Supreme Court decision made very clear that there has to be some burden. The Supreme Court made Alford Friendly's innocence irrelevant.

JUSTICE ABRAHAMSON: In the concept of finality which is what we are really talking about.

PROFESSOR SCHECK: Let's be clear because I don't want to -- we should have a clear consensus on these points. I'm very appreciative of the concerns you raise.

In Category 1 where there are cases where, you know, all reasonable people will agree to do the DNA testing, it's going to exonerate somebody who doesn't have, as this Example 5, some other reason that they're sitting in jail for some other crime they committed, that this would be dispositive.

It was our feeling as a group notwithstanding -- and this is why it's such a significant step in recommendation, notwithstanding statute of limitation problems and notwithstanding due diligence problems because some of the jurisdictions that put time limits on would say something like you have to raise a claim within two years so then the debate is going to become what DNA testing was available within two years within a jurisdiction.

Then you have to debate as to when that DNA testing became available because Jim pointed out in 1989 there was testing, but in 1989, the testing that was available wouldn't have been able to give results in the kind of cases we are dealing with here.

And we just had so many of these cases in the books where RFLP testing failed and subsequent testing exonerated somebody.

And then there's going to be a new generation of testing that is going to be more sensitive.

So we thought if we defined -- there's a clear group of cases that cries out for some test. We shouldn't go in for litigation as to did they have the resources, does the statute apply here, that we should have either by a statute that's passed in every jurisdiction or by consent to both sides an opportunity to get these cases on track and see whether a person is guilty or innocent.

So that was our thinking in defining Category 1 and defining the Category 2's in --

MR. WOOLEY: I haven't answered your question. My answer is not the answer, but I thought about it when His Honor was speaking, the question about whether you should write this in a way that looks like it's more of a body of legal research.

And hearing His Honor speak, there's a huge body of law about all this stuff already. And if you write and if this Commission puts out a report that we expect people to rely on, that much of what may fly in the face of the huge body of law, this has to look like something that in my opinion is just pot law or just policy.

You need to maybe explain that precedent, why the Commission believes it doesn't apply here or shouldn't apply here because there's an enormous amount of law reflecting a public policy to limit post-conviction challenges.

Right or wrong, that's where the country is on those issues. And if you're going to convince people to change it for this, I think you need something a little meatier.

MR. THOMA: I don't think we need to with regard to Category 1 cases because those cases are going to pass, but I think we do need to take it into account because we are going to lack the authority --

PROFESSOR BERGER: Do you think it might be helpful if we have a Chapter 2 on scientific development, to have a Chapter 3 that would have legal issues, precedents and -- this is getting longer.

JUSTICE ABRAHAMSON: I think we need it to support it.

PROFESSOR SCHECK: Actually I think that actually is a very good suggestion for this reason: I think everybody should be clear about the steps we are talking because frankly even though you talked -- I've talked to members of Congress, Republicans, people like Roy Hatch and others who like the idea as long as it's key to actual innocence.

That's what we are recommending here, that it either be done by statute or done informally between defense and prosecutors.

Many of the cases where people have walked out of jail who were on death row like Kirk Wadsted from Maryland, technically speaking I'm not sure if the courts that ordered the testing and the prosecutors and everybody else who agreed to do it even technically speaking even had the jurisdiction to do anything they want to do and we can't hide here.

If that's what we are recommending people do in certain narrow classes of cases, I think it's very important we tell them exactly.

JUDGE WEBSTER: I think that becomes Chapter 2 and the other becomes Chapter 3.

PROFESSOR BERGER: Okay.

DR. DAVIS: Let's turn back to the word possible. Possible is unlikely but still bearing with it reasonable and speculative as being sort of frivolous and bearing with it nonreasonable.

Can you differentiate in your writing between where the test possibly could exonerate the person as opposed to a test which is purely speculative or unreasonable? I think that might satisfy Dr. Reilly and it would certainly satisfy me.

PROFESSOR BERGER: But I think that is going to be so tied into the particular evidence and the facts in the case so I suppose one could maybe think of a pair of illustrations, one of which would go over to the more likely and less likely side.

But in essence, that's what we attempted to do with Illustration Number 4 and maybe again a little more specific.

Anyway, as you can see, we have real policy issues here. And Example 6 is also a policy question of whether we should be interested at all in the person who is not in prison and who simply says this prior conviction is causing me some grief in my life even though I'm no longer in prison and I'd like to get it vacated, if I can.

Again in terms of scarce resources and whatnot, is this something that this Commission would like to do something about?

JUDGE REINSTEIN: I think we have a broad consensus that this would be an ability to pay issue. That was not going to be paid for by the state.

If somebody has problems getting the job, that they would have to -- and they're out on the street, that they would have to gather up their own fund to get that test done.

MR. THOMA: Meanwhile, they'd have an inability to vote among other things too.

PROFESSOR BERGER: There are lots of consequences.

Now, our Category 3 case we really wanted to put in as sort of an intermediate step. This is basically a category where one knows that the favorable results would be inconclusive at the moment but something may happen in the future, either technologically or in terms of other evidence that comes to light that may make testing feasible.

And here really what we wanted to insure was that whatever evidence there is will be preserved, that if something turns up in five years that might be useful to this person, it won't turn out that two years ago things were thrown out.

So I think that this is really there only to interrelate with requirements that once certain kinds of notice be given or whatever, that evidence has to be preserved and that there be some kind of uniform preservation of standards.

Category 4 is a most unfortunate category but one which we know exists and that is one where simply no one can find the biological evidence that once existed, and there simply is no possibility of doing that testing.

Category 5 is the case in which a request for DNA testing is frivolous. And we have given two examples, one in terms of the legal theory of the case, that simply the defendant -- the defense precludes now arguing that DNA testing would be of any value and the second one is one in which someone is just -- there is such overwhelming evidence in the case that it simply makes no sense to do any DNA testing.

And that's really the end of our categories in our examples.

MR. CLARKE: Going back to Category 4, does that also include evidence being destroyed because there obviously is an enormous amount of evidence or not?

MS. BASHINSKI: That opens the whole Pandora's box. It could exist and be useless.

PROFESSOR BERGER: For whatever reason, it is just not there to be tested.

Okay. That brings us to the next section which we have been alluding to and really the question as whether part of this document, we should also include not just protocols but suggestions for model legislation because this is obviously something that goes beyond anything that can be done by a protocol.

To some extent one can achieve some of these things by protocol, for instance, a prosecutor consents to waive a statute of limitations or is willing to arrange for payment or a lab is willing to cooperate and work on things pro bono.

But the real policy question is whether this group should really say that what we would want is a uniform legislation that every state would have that would take this out of the realm of cooperation and into the realm that this is what we think a desirable, legal structure would be.

I put down three things which we have not drafted and the last one of which is really extremely tentative. One is with regard to the statute of limitations which you have been hearing about, whether or not one should in Category 1 cases have a statute that says that when there could be exoneration, a time limitation will not act as a bar.

A second is closely related to that, as you can tell from the discussion, which is whether in a Category 1 case there should be a provision for payment when an indigent is requesting testing.

And the other possible thing that we might want to include in the legislative package which we talked about but really have not developed is the need for some kind of advisory groups, advisory groups that might be of assistance to a prosecutor and defense counsel, for instance, who need some technical advice on precisely what kind of testing would be available in a situation.

Would it really exonerate in light of what the biological evidence is that's available, the kinds of things that you can see in the laboratory protocols?

And also, perhaps an advisory group that would sort of monitor what is happening out there with those conviction rams in the DNA area, gather some statistics, perhaps report on what is happening, how well this system is working and have that kind of a possible role there, whether it should be on a national basis, state basis.

Barry has brought to our attention some English legislation that sets up this kind --

PROFESSOR SCHECK: Dr. Werrett is here to tell you more about it. There is something in Great Britain which is something that's nine or ten months old and Dr. Werrett is aware of the operation.

But basically the way it evolved is the following: In Great Britain there were a number of cases that you have seen in movies and read about where there were exonerations, some of which involved actually some bad crime lab work but some exoneration of people who have been convicted and some who have not.

The way that legislation is passed, they set up something called the Criminal Case Review Commission which involves police Commissioners, former police Commissioners, judges, prosecutors, defense counsel and has the access to laboratories and has subpoena power.

And what happens is you might look at it as sort of like a glorified pardon board so to speak because you don't have a right to go back into court in Great Britain the way we do here although that is being limited as we know.

But what this Commission will do is go and claim that a conviction is unsafe and they actually will screen the cases much the way we sort of do in the innocence project where they just focus on DNA and they will conduct an investigation in some instances and actually issue recommendations.

We are not particularly sure you can invent exactly this kind of a body in the United States, but the kinds of things that we were playing around with is that, for example, you as an adjunct to a pardon board might want to put in place representatives, prosecutors, defense lawyers, people who have access to the labs to look into it.

I mean the truth of the matter is in Virginia where they have a 21-day rule as to say you can't raise post-conviction challenges within 21 days but also a jurisdiction where they save the evidence, so in many of these DNA cases, we have gotten a lot of exonerations in Virginia, in fact, de facto, since these Commissions.

It doesn't matter who is governor. If something is filed and the prosecutor would consult the poll and review the evidence, and at this stage of the game, if it looks like a Category 1 case, the poll just does the testing.

So you might want to in some fashion or form institutionalize it, make this advice available to the judges.

I'm not sure we could ever actually come to an agreement on what such an institution would look like. The issue is should we as a purely informational matter describe some of this and lay it out in this document for states to consider, each state, its own laboratory, incubator. That was our thinking.

MR. ASPLEN: Barry, I'd also point out that at your seat was included with this morning the Ontario Commission on the proceedings involving Guy Paul Morin which is not obviously the British system.

However, it is an example of what Barry was talking about and is extremely interesting, interesting reading.

It comes out with a number of recommendations of what the Canadian system can do to improve the liability of evidence in that system.

But I commend it to your attention. It's a very interesting read and an example.

JUSTICE ABRAHAMSON: Do you want the Commission to discuss each of these three now? We have got ten minutes which is not enough allotted for the entire report. We are only on 10 and the rest of the report is very interesting and also has potentially debatable issues in it.

We may have time to come back to this so I leave it again to you, Ron, and others here to determine that. Do you want some commentary?

PROFESSOR BERGER: I think it would be very helpful to the working group if we had a sense of this group as to whether we should continue on this path.

JUDGE WEBSTER: I think you should. It's my own view that in Category 1, you have come pretty close to an acceptable protocol, guideline, principle.

But I would suggest that the working group look at the possibility of providing consistent with the policies expressed in the current legislation and case law a cutoff on how -- looking to the future, people today all have access to this information, readily available and scientifically accepted.

And they shouldn't be able 20 years from now to go back and dig into this thing. This burden should be on them just like every other burden to go forward with the claim for post-conviction remedies for those that have it as distinguished from those that didn't have it.

JUDGE REINSTEIN: I think that the people -- now, once you announce that this is available, that there probably should be a cutoff. I know there's jurisdictions around the country that when they change their criminal code, they have a disproportionality review committee from executive clemency or they can go back for a limited period of time.

And in that period, we discussed this, that we expect there would be a whole lot of cases that came in in the first year or so. But after that, it would be, you know -- it would trickle down quite a bit.

That was what our expectation was.

PROFESSOR SCHECK: One of the factors that may help you with this issue is that you'll notice that one of the examples that we give certainly in the prosecutor and defense protocols is take a case where somebody was convicted and there was a form of RFLP and D testing that resulted in their conviction.

Those cases we would consider frivolous and wouldn't even put them in the decision. And it may even come into our discussion in the DNA databases.

We are in an era where what we want is any new case that comes into the system, the first priority as far as I'm concerned is to do testing on any available biological evidence so it's our hope that there naturally will be a cutoff.

In other words, this is a class of cases hopefully that we are going to weed through and get out of the system. And as we enter an era where we are typing the cases coming in, there really aren't going to be that many cases anymore where DNA testing wasn't done in the first instance in these kinds of matters. That's our hope.

JUDGE WEBSTER: I understand.

JUSTICE ABRAHAMSON: Jan.

MS. BASHINSKI: I would speak to that. First I think we are not there yet. Practically speaking, I think there are many, many cases that are adjudicated for practical reasons because there's not the resource to do the testing up-front.

But my second point has to do with eliminating the statute of limitations. You're silent here although you speak later in your report about preservation of the evidence and a Category 1 case no longer because it's a homicide, because it's a rape. It has a certain statute of limitations.

Now you have to look at the quality of the evidence and it's going to be very difficult to write a standard that's going to take those into consideration so you know that you preserve the evidence appropriately regardless of the type of crime.

PROFESSOR BERGER: I don't think really our working group is the one that is the preservation standards. I think certainly if ultimately there is some kind of a package of uniform legislation, this -- these would have to be combined with other recommendations coming from other working groups.

I don't even know whether our legislative proposals would belong in this thing that you were talking about putting out now or whether they should be held for incorporation with other groups.

That's some of what I think we need to talk about.

JUSTICE ABRAHAMSON: I gather your idea now is just a concept rather than just final legislative language?

PROFESSOR SCHECK: With one exception, and that is that intellectually and legally none of this makes sense as Jim pointed out, I think, unless you're willing to say that in Category 1 cases, you ought to have legislation or as we propose in these protocols, we think all the actors within the system were to cooperate.

Unless you accept that as a first principle, then this enterprise doesn't make a hell of a lot of sense.

So that's the only piece of information that we thought was critical. Maybe I take it we have to explain that in greater detail so people have to understand that's what we are talking about.

PROFESSOR BERGER: Plus payment as an obstacle, can't get it done, the state won't pay, the same situation.

JUSTICE ABRAHAMSON: So then I gather something would have to be put in this draft indicating a line but that 33 states would say absolutely no after a particular time period.

And to get anywhere with this, change in either practice, consent, legislation, or what have you, it would have to be done to move on this. You'd have to update that so that would be a basic concept would have to be put into the introductory comments at a minimum.

Does everybody understand that? I'm not tying your hands to agreeing to that but this is a basic concept.

MR. GAHN: Chief Justice, when I read this though, I wish I could give some reason why it's more of a gut reaction. It eliminates statutes of limitations and maybe we are gun shy as prosecutors, all the years' admissibility and weight, things we thought we settled in American jurisprudence we took out different levels of scrutiny than we ever believed in our lives.

When I see something like this, I have a question I think the Commission has to question. Is DNA shaping our American jurisprudence or let me ask the question of American jurisprudence and where does DNA fit in?

When I see this starting to eliminate the statute of limitations, I see DNA shaping what we have such laws in place for and it's a gut reaction I have when I see something like this and maybe we should step back.

JUSTICE ABRAHAMSON: The jurisprudence is finality at one point if I understand you. One point you say that's it.

MR. THOMA: With regard to this, we are talking about the Category 1 cases where the prosecution is agreeing with the defense that redo these tests. You have some decision here that's going to -- it's going to be final basically at that point.

So really in a way even though our judicial system had the statute of limitations, it's kind of an executive function to remove it from the statute of limitations. It seems really equitable that should be the case.

MR. GAHN: I don't know if we have to go that far. I have had cases where the defense has approached me and said it's a Category 1 case and I say go ahead; I'll waive all this. I don't know if you have to take this -- this is a big step right here.

MR. THOMA: That's you. That's not everywhere, everybody.

MS. BASHINSKI: It also leads to other things. As a laboratory person, if I know that's a potential thing to do or as a police agency, then I have to worry about, and I should worry about, how I keep the evidence because I know these cases are going to come back.

So that's a real practical issue.

PROFESSOR SCHECK: To be clear about the way this works, all these protocols are designed, structured decision making in a world where in most jurisdictions there is a statute of limitation.

MR. WOOLEY: May I ask a question, if I could? Do we have a sense, Jeff or Barry, empirically of how often it has happened where we had a Category 1 case and the prosecutor said I agree this is an actual innocence case but I'm going to use my statute of limitations to stop you from coming into court? Do we have a sense for our need to go to legislatures? What's our empirical basis to say we have to change this whole statutory scheme?

Is this something that happens all the time? Do prosecutors say I agree with you that he would be exonerated and I agree with you that the test should be done, it's a Category 1, but now I'm going to say I'm unwilling to waive the statute of limitations? And specifics I'd be interested in like we have to book about 55 people being exonerated.

PROFESSOR SCHECK: About three quarters of those cases. You have to understand you're sitting here because you know something about the technology and because we are all reasonable people.

And we all -- if we all sat down, the way our working groups are functioning is we knew we could agree 80 to 90 percent of the time on these cases. The reality is that in the field, there are a lot of people that are very insecure about this. There are many political considerations when it comes to reopening old cases that nobody wants to deal with.

I can cite you chapter and verse of Category 1 cases. In this town alone, there are some prosecutors and detectives that are about to go on trial for their refusals to deal with some of this evidence.

JUSTICE ABRAHAMSON: What does the statute say? If a Category 1 is one that everybody agrees on, then all you have to do is defeat Category 1 by not agreeing.

PROFESSOR SCHECK: New York has been an interesting example because that's the state where there is no statute of limitations, Number 1, so this statute was written solely for purposes of determining who gets testing at public expense.

And incidentally it's done by -- the offer is that the state laboratory do it so it really cuts the cost down. The statute reads, as I recall it, that you have to have a substantial probability that the DNA testing is going to change the verdict.

So it mirrors the high standards for newly discovered evidence.

Most statutes dealing with newly discovered evidence have more or less the same language, that you have to show evidence. So it's got to be powerful evidence.

DR. REILLY: Would it be helpful to use that language? You said a substantial probability. Your Category 1 was absent, exonerated, and that's a different standard than substantial probability if there's an existing body of statutory law that's relevant to the extent of tracking.

JUSTICE ABRAHAMSON: It's a tough standard.

DR. REILLY: It's a very high standard.

JUSTICE ABRAHAMSON: Maybe the lawmen and others here will have other suggestions on the statute, eliminating statute of limitations or in addition. The state may make several choices or do something else.

MR. GAHN: The overlap that we just talked about or with other groups -- there is no statute of limitations for homicide so it's going to take a number of cases.

You talk about your sexual assault cases. That's probably what you're talking about now. You have a certain statute every six years and all those variables.

But I think that I would like to work on this a bit and I think if you could gear this more towards the cooperative effort of looking at the Category 1 cases.

PROFESSOR BERGER: The statute of limitations, isn't that on post convictions?

MR. GAHN: But I'm talking about that you're not going to test. There's a lot of ways the evidence is not going to be protected anyway. And that's where you get the overlap that you have.

JUSTICE ABRAHAMSON: I think what they're talking about here is how long a time period do you have to bring legal stuff, evidence that will exonerate and is it forever or should you have ten years or some other criteria for bringing it in? Isn't that the discussion?

MR. THOMA: Your Honor, Judge, Barry brought up a very good point about when we get to that point in time where it's available, that might be the time to settle some type of a statute within ourselves, but I think otherwise we should have some exclusion to the statute of limitation.

And I know Jan and Norm are uncomfortable with that, but if we are just dealing with Category 1 cases --

JUSTICE ABRAHAMSON: I think if I understood Judge Webster, he said maybe starting January 1, the year 2000, you shouldn't have something special for DNA because you should treat DNA, if I understood your comment, as you treat any other kind. So this would be for the back lot, cases that have already been tried?

JUDGE WEBSTER: Yes.

MR. THOMA: That's my point as well.

JUSTICE ABRAHAMSON: So you have two points. One, cases to be tried in the future and, two, cases that have already been tried and the post-conviction statute of limitation.

Norm, are you on that committee?

MR. GAHN: Yes.

JUSTICE ABRAHAMSON: Can you look back into this and consult?

MR. GAHN: Yes.

PROFESSOR BERGER: There's another time problem too that obviously you need enough time to locate the evidence because obviously it takes so long for it to be found.

So even if one had a cutoff, one would have to have some kind of a mechanism that, I guess, starts tolling the statute when something or other gets done so that you can't just be defeated by saying we can't look in our file drawers until next year.

JUSTICE ABRAHAMSON: Does anybody want to say anything about paying for testing because I do want to move into Dr. Werrett's comments which I think would be very helpful to us and we can discuss the advisory group if that's all right with you?

Anything else you want to point out in the draft so that others in the interim --

MR. WOOLEY: Just on the whole thing?

JUSTICE ABRAHAMSON: Yes. Go ahead.

MR. WOOLEY: Maybe I'd send a letter to somebody to address it in writing because it's a lot.

The discussion about the prosecutor's protocol, Norm touched on some of those issues earlier, but I think it's an enormous discussion.

MR. CLARKE: Is there going to be an opportunity to do that?

JUSTICE ABRAHAMSON: There has to be, yes.

MR. WOOLEY: And if there's a time when people are going to be working on that, if you want the benefit -- you probably don't but you're going to get it, the benefit of my thinking.

MR. ASPLEN: I really think that a great way to do that really would be the forum that we talked about. That would be a perfect kind of introduction into that.

If you could put some of your comments directly to that forum that all of the working group members have access to, that may help us get where we need to go, from an expedience standpoint also in terms of getting the information to us.

JUSTICE ABRAHAMSON: Would that be agreeable?

MR. WOOLEY: I know you guys are moving quickly.

JUSTICE ABRAHAMSON: We are not moving that quickly. I think it's very important to get your input.

MR. WOOLEY: I'll do it in any procedure or setting you want me to do it. Norm started touching on it earlier, but there's some issues there, prosecutors, procedures, protocol section that we'll drive you crazy about.

MR. CLARKE: Which may be substantial enough --

JUSTICE ABRAHAMSON: We don't mean to cut off that, but to the extent that you can put it in writing that the working group can look at and everybody else can look at it, then when we begin here the next time, there may be an easy way to focus.

This is a good start.

MR. ASPLEN: We can even expand the scope of the post-convictions issue working group to bring you guys into that the next time we meet if we feel we are that far off. That's no problem at all.

MR. WOOLEY: If we can go to the next meeting.

JUSTICE ABRAHAMSON: All Commission members are invited to all the meetings and some are done by telephone. One was a video conference. So I think that's very important.

Any other general comments like that?

MS. BASHINSKI: Just for the record, it has to do with the laboratory protocol on Page 9 with how evidence is properly preserved. I think it is debatable whether or not room temperature is an appropriate way to store this evidence.

And so I think I just want to say this now and I will talk to other laboratory people about that later. But I think it's a significant issue and it's one that bears on the technicality of long-term preservation because if room temperature preservation is not necessarily most appropriate, it may be more difficult to preserve than this group might think.

JUSTICE ABRAHAMSON: My own plan is to come back to this if we have time at the end of the session from the 2:45 to 4:00 session if that's okay with you. I think we have done a great deal, but there's still a lot to be discussed on this issue.

But I again want to commend the work force for laying these matters out on the table in a way that we can touch and feel in the intelligence rather than just very general things that we often agree on. But as we say, the devil is always in the details. This draft has shown that too. Thank you very much.

We are adjourned for lunch.

(A break was taken.)

Presentation by Dr. David Werrett Director of Research and DNA Services The Forensic Science Service United Kingdom

MR. ASPLEN: If we could get started, I'd like to take the opportunity to introduce Dr. David Werrett who is the director of research and DNA services for the Forensic Science Service. He's been there since 1977.

He joined the service and did research for three years, case work for eight or nine years, was the head of biology.

In 1991, he became the head of management services; in '92, the director of operations; in '94, director of service development; 1996, the director of research and DNA services.

I spearheaded the national DNA database and he's here to tell us about the UK experience with the national database of convicted offenders.

PROFESSOR SCHECK: I should add that he's an unpaid advisor to the New York State and Illinois Task Force and has provided us some valuable assistance.

MR. ASPLEN: Thank you for being here, Doctor.

DR. WERRETT: Thank you. I have a long list of job titles. It just reminds me that my chief executive is very keen on shuffling the pack on regular occasions. It's not a reflection of doling out the favors.

I'll say a little about the Forensic Science Service. We are a government organization. When I come over here, people say you have been privatized. No, we have not been privatized. We are a government organization.

We work for the home office. We are not what's known as an executive agency which means we charge for all the services we do so we operate commercial accounts like a company but we are still part of the government. We have 1,300 staff, six laboratories, and our turnover last year was something around 60 million pounds.

The trick if you're a government agency is to come in without a profit or a loss which is quite tricky on 60 million pounds and that we endeavor to do. Last year, we were on the black side of the 60 million so we were allowed to carry on another year.

That's the intro.

I look after research and DNA services. We grouped it together like that because of the national DNA database, DNA is expanding so fast and a lot of it has to do with research, that we decided we'd go ahead.

What I'm trying to do for this particular talk is build up from 1984 which is when we decided to set back a database, set the legal framework in place, and talk to you a little bit about the powers that enable us to carry out the database.

I'm sure you'll be hungry for statistics. I'm putting quite early the matches we have been getting to keep your appetites better for later on.

I'll also talk a little about science, and hearing Jim Crow's questions earlier on, a bit of where we think we are going but I'm open for observations.

So I'll address why a database, what are we trying to achieve, will it work, what's the target population in the UK and I'll spend a little bit of time on that because we have a very different criminal spectrum to, I think, what you have in the United States.

What empowerment is required? Politicians, enforcement agencies and scientists worked together, made changes in the law to enable the database to take place and that was mainly to do with power to take samples.

And then we built in some safeguards which I think are very important. To make up the framework for the database, we sent about a customer requirement. In this case, the customer requirement was with the police forces. There's 43 police forces in England and Wales. We got them all together and asked them what they wanted.

And then we checked out whether that's acceptable by the stakeholders, for instance, ministers and representatives of the public at large.

We adopted a strategy of suppliers and custodian. You can supply profiles to the national DNA database in the UK if you comply with certain standards. You can be anybody, any laboratory if applying to do that.

The FSS acts as a supplier but also acts as custodian. We set the quality scene if you'd like about being able to supply samples to the database.

And because it's always fun to do, I'd like to talk about intelligence screens. This is a system I'm assured will never work in America but we do it very successfully in England and Wales.

This involves taking a population of individuals, asking them to volunteer a sample so they can be eliminated.

I'll then go into matches which I'm sure you'll be anxious to hear, individual to individual. I won't particularly concentrate on it because the police lost interest in that very quickly, discovering aliases. Individuals to scene, scene to scene, types of cases we deal with in the UK, how many confirmations.

We have a system where the national DNA database is for intelligence purposes only. It's not evidentiary, so if you want to proceed with a case, you have to select another sample and get that analyzed. And that's used for evidence, double check system.

I also want to stress the point that DNA led investigation is now becoming the norm in the UK, and chief police officers are seeing it as a cost effective way of investigating crime when compared to some conventional methods.

Efficiency data. I want to just talk about what we do in terms of the process and the test regime. The first thing I have to talk about as director of the area is rationalize the facility.

If you are going to analyze hundreds of facets of samples like these, I wanted to go from six sides to two sides to do that just to control the quality in the processes and make it economic.

Talk about the teams and the way we process things and a few of the improvements we have in the pipeline.

Finally I got a little vision at the end which is the future technologies we see. Does it work? I know you'll be hungry so here is the appetizer.

Total number of samples from suspects and convicted loaded to the database is now 320,320 and 51,852 removed.

We have a system where you can take samples from suspects as well as convicted individuals. If your case is not proceeded with or you're acquitted, then we have to remove the profile from the database and destroy the sample. And we have done that now over 51,000 times.

You can see we have a backlog. I was very selfishly refreshed to see that your backlog is five times greater than ours. I will cherish that piece of paper and take it back with me. But we hope to eliminate the backlog this year.

Total number of profiles from undetected crime scenes is 33,144 so that's a scene where no suspect stain has been taken and it's been profiled. And within those stains will be vagina swabs from rape victims.

Certain number of matches reported, suspects to crime scenes is now 21,863. I want to go into that a little bit later on in the talk and just put some caveats on it. It's proven to be extremely effective.

The total number of crime scene to crime scene matches is now over 5,000.

And the number of matches reported per week varies from about 300 to 500. And I have a week's report with me which with your permission, Madam Chairman, I will distribute around.

And I put under there force evaluations. We have been going since 1985, April the 10th, 1985, and it has taken until now really for forces to start saying what do all these hits mean, what am I getting out of it.

And they're all starting to do the evaluations so I'm really looking forward to the data that's going to come out of those studies.

Certainly from the point of view of the customers, they want more. This financial year, our financial year runs from April to March. We plan to do 250,000 samples, and the following financial year, they want to go up to 350,000 samples.

We will do about 36,000 stains from undetected scenes of crime and 30,000 stains generated from case work. These are just stains coming in from scenes of crime and they are separate from case work where you're examining a stain in a case of an accused individual. These are quite separate. And 15,000 samples from intelligence screens.

Let me dip into why a database in the first place. I think the precedent was set for using DNA as an investigative tool in the mid '80's.

Petry and Gill and I and a few others did research in a case where we in 1986 started to screen around 5,000 men. I think Joseph Ronbolt wrote a book about it called The Bloody. It demonstrated the power of DNA to exclude prime suspects. It was in a little village and we launched a screening procedure where everybody volunteered samples and we eliminated the local target population and eventually a man came to light.

But at that point, the appetite was set for one to do databases for DNA because all this was multiprofile and it was quite unsuitable for data.

The pattern of offending in the UK included considerable recidivism including a tendency for some individuals to move from petty to serious crime and that information was coming from fingerprint evidence.

The police were making a big thing out of the fact that they could demonstrate this progression through crime.

Looking at some of the statistics, 60 percent of court appearances are dealing with 21 percent of offenders and they commit a variety of crimes.

The trend is rising over the years in terms of recidivism and individuals with six or more court appearances have an 80 percent chance of reoffending.

So I was listening very interestingly to the three strikes and you're out situation. We don't have that but that's the result.

After the first offense, the chances of reoffending are also increasing. We have a survey running in the UK here where you take three cohorts of individuals who were born in 1953, 1968 and 1973. I picked one age group but the trend is the same in each age group.

This is at age 14. If you're age 14 and you're in the '53 cohort, you have a 51 percent probability of reoffending, '68 up to 60 percent and '73 up to 77 percent. So the trend increases.

This is the male population. I should stress for the ladies present that it's mainly the men. The women are at least a lot below what the men are. But in terms of first offense, this is the age, 15, first offense is 8 percent of males convicted of some offense, 20, 20 percent and 30, 31 percent.

After that, the figure rises very little. Only about 1 percent of the population can get convicted for the first time after 30 so about 30 percent of males in England and Wales are carrying convictions of some sort for crime.

By far, the majority get convicted between 15 and 30 so I hope I painted you a picture of the dynamic criminal population to join this population and then tend to drift back to it.

You can look more at the drifting aspect with the joiners and leavers. This is most frequent offenders by age group, time of the first conviction. That's another way of looking at it. This is percentage here. This is age.

It rises rapidly from ten up to a pique at 20 and then drops off.

If you look at the people that are desisting from the criminal activity, then that also rises with age. So there seems to be a period where people become active and then come out of the criminal population whereas others are joining.

If I just peek at the database figures here, all I have done here is plotted the ages of individuals being sampled by police officers for the database in percentage terms.

And you can see it tends to mirror the recruitment of the criminal. So they're sampling quite a few people between 14 to 19 and that's equivalent to 30 percent of the males on the database which suggests going for suspects is quite a good tactic although I know we are quite alone in doing that.

Looking at it from a different angle, the police only detect about 25 percent of criminals. And if the same demographics apply to the undetected, 75 percent of crime, then it is likely that a comparatively small proportion of individuals are committing the majority of this crime too.

At any one time, there are a number of individuals that are suspected of recordable crime.

If they are a member of the small population that are convicting the majority of crimes, then their profile should be used to challenge the profiles from stains recovered from undetected crime scenes.

And it was that that drove the law in terms of going for suspects which are part of that active criminal population as well as convicted.

What we ask for in terms of empowerment was the ability to collect samples from suspects even when they are not relevant to the immediate case.

The law previously in the UK said you can only collect a blood sample if it was needed for the investigation in that case. It's no longer the situation.

The ability to collect samples by force if necessary as per blood alcohol analysis.

The ability to hold databases of both suspects and convicted with removal conditions as I have mentioned.

And the ability to store samples for future proofing. We are very much aware that the technology is likely to change so we store all samples.

The law was changed in 1994 and essentially we used the model of powers to take fingerprints. I heard somebody say earlier we are modifying the criminal justice system for DNA or should we be looking at how DNA can help the criminal justice system.

We took that very point on board and we wrote it in terms of the fingerprint law. So it's very general, so if something else came along, you could equally apply the legislation to it. It doesn't mention DNA too much if you look through legislation.

The powers were evoked through a strategy we use which is the concept of intimate and nonintimate samples. The law was changed and took buccal scrapes and hair roots out of the intimate category.

In English law, if you take it out of the intimate category, it means anybody can collect them, particularly police officers. So you no longer have to have permission from the individual and you no longer had a medical practitioner to take a sample.

So police officers can take buccal scrapes or hair roots. And they may be taken without consent from individuals who are suspected of a recordable offense which is defined as an offense with a prison sentence.

JUDGE WEBSTER: With or without a court order?

DR. WERRETT: Without a court order. But there are safeguards. You have to have the permission of a rank superintendent which is a high ranking police officer.

If the case is not acquitted or proceeded with, everything is destroyed.

The enactment of the provision came into effect on the 10th of April, 1995. But with most British law, it's not retrospective so you couldn't backtrack on the individuals.

What usually happens when a law is enacted is the whole of the rights guides us as to how it should be used and the first point is it should be used for intelligence purposes only, not intended for prosecution.

So none of the national DNA database gets presented as evidence in court.

The sampling can be repeated if the sample is insufficient, but if we fail with the process, then you're not allowed to collect another sample from the individual which is very much like the blood alcohol rule.

And then there were definitions for the database, re scope and partitions, who went where, how we can break down the data.

And I mentioned this concept of custodian and supplier. The latter, the suppliers, need to comply with quality standards that are set by the custodian.

The police decided that they would start sampling individuals from burglary dwellings upwards. So in that first year, we targeted to analyze 135,000 samples. But I was recently at a user group which is a joint group between ourselves and the police force and they want to widen that act to look at auto crime and individuals involved with drug offenses which is within the law.

That would take us up to about 250, 300,000. The potential is to go to about 400,000 samples in a year.

And you take two swabs from any individual, two buccal scrapes. One is stored for future proofing at minus 80 degrees and it's all done with a kit.

We put a tremendous amount of effort into training police officers to do this. We gave them a kit with which to do it. I think without that, it would have been an almighty failure.

We get everything bar coded because we send everything out with bar codes and they use a standard form for taking samples.

And then we changed the law again because of the success of the database to allow the taking of samples from those detained under the 1983 act, convicted of sex, violent and burglary offenses and still in custody.

In other words, individuals who were now in prison, we could now backtrack if they were convicted before '85 and take samples.

As soon as they were released from prison, that power lapses so there is a great rush on to get on the prisons, particularly target the sex offenders.

Doing that, we took 4,600 samples under this provision from a prison population of over 50,000. And as I said, we targeted sexual offenders.

Having done that, the first matches came in October 1997. Remember, most of those individuals are probably still in prison anyway. And so far we have had 17 break-ins, one auto, one arson, no sexual offenses from that particular group.

I'll tell you an anecdotal story about that. We got some samples in, and we were told not to analyze them. It turns out as a way of avoiding DNA profiles, prisoners were swapping spit before they were given a sample. It must have been quite a sight.

We have the framework in place. What about the development of the tools? The customer requirement had three major elements in the memorandum of understanding which we wrote between us and the police forces.

We want an individualization of profiles. They wanted matching of suspect to suspect to scene and scene to scene as you would expect. That's to be done by the custodian and an addition of at least 200,000 samples per year and accumulate up to 5 million samples.

There are other operating definitions which include all samples be analyzed in two weeks, reports of matches to be used in 48 hours, a price of \$55 dollars per sample and a custodian was required to safeguard quality.

Now, I'll just nick-dime those because I want to discuss some of those. The first one is individualization by suppliers. That has changed hugely now. We complied with that one. We complied with that one. We didn't on that one and we are getting close to that one now.

That one was a given so there wasn't an opportunity to complain or otherwise, and I'll give you where we have got to with this custodian rule.

We use six STR's which gives average match figures of about one in 50 million. And all suppliers agreed we would stay with one PCR reaction.

I know over here, you're going to two PCR reactions. Nobody wants to do that.

And I chair a European Network of Forensic Science Institute DNA working group where it has representatives from laboratories all over Europe and everybody in Europe wants to stay with one PCR reaction.

This is an SGM. This is 36 cycles. I put this one in because it's amusing. It's from one single buccal cell and I noticed earlier that Jim Crow mentioned the difficulties perhaps of getting more and more sensitive.

And I can show you another profile where there has been mutation in one of these DA teams where the individual has lost the repeat. And there's all sorts of funny changes.

And at the moment, there's quite a big research program looking at how many copies of the genome do you need before it's safe to use this kind of testing in the forensic circumstance. But that's six STR's.

One in 50 million, we held heavy discussions with the judiciary, the Crown Prosecution Service, the police, and everybody now agrees, although it's not written in any law, that there's a need to provide on a routine basis further corroborative evidence.

Never let DNA evidence stand alone has become a tenet in the UK. As I said, it's mentioned for intelligence information, evidential analysis. We can go further. We can test if you want.

Generally we find one in 50 million is enough to provide very good strong corroborative evidence which goes alongside the other evidence in the case.

One in 50 million we feel forces that issue, that individualization as far as prosecution authorities and the police are concerned is no longer a requirement.

They got very excited about DNA fingerprinting and now they're quite keen on DNA profiling.

I want to say a little bit about that in terms of pairways comparisons. When a scientist appears in court in the UK, I think we take a rather different attitude.

We recognize with a population of 60 million and a match probability of one in 50 million, if you look at the number of pairways comparisons you can make, then you can predict you would get 36 million pairs of profiles.

In other words, for every profile we could get, you would tend to find another individual with that same profile.

So when we go to court, we actually say -- we are asked how common or how rare is this, and we would say that we would expect there would be one or two or maybe a small cohort of individuals with that same profile.

And it's for the jury then to decide based on that strong evidence and the other evidence in the case whether the individual in front of him is one of the cohorts that could have committed the crime and people feel very comfortable with that.

I have done a bit of Bayesian work here, but suffice it to say, we tend to approach it from a Bayesian point of view. But we don't go to the full Bayesian treatment, not for the scientist who presents the likelihood of the ratio.

If the jury and the court want to get into posterior odds and arrive at those theories, then that's up to them.

A recent term Superior Court hearing said from the judges of the appeal court that they may wish, and scientists should go prepared, but they may wish scientists to say how many people given this population, how many people given that population could there be in a population that have the same profile.

And I think that put into context the other evidence and goes into this kind of intuitive Bayesian mode which I think is perhaps the best way.

Jim Lambert who did this for a bit of fun looked at this 260 billion which was recently talked about over here in the old population of 260 million.

If you do that, then looking at pairways comparisons and using the same kind of logic here, there would be about 130,000 pairs of individuals with the same profile in this country. That's a tiny number compared to your total population.

But as a scientist, it's probably best to avoid this issue of individualization and just say how strong the evidence is and have the jury make up their mind.

And we have the NIC5.1 recommendation which 300,000 samples are approaching that, then discounting by that every time we work out a possibility factor. We just about ruin the evidence every time and we don't that.

Individualization and adventitious matches. One in 50 million means that once you have a database of 10,000 samples, you'll start to get pairs. You'll get pairs of individuals with the same profile. Similarly, one in 260 billion pairs occur at 500,000.

So for matches from individuals to crime scenes, when you have 200,000 suspects, you have more than that. For 20,000 scene stains, we will start to get adventitious matches which is what we experienced after one to two years.

But because the police uses that for information only and realizes they have to get other evidence, that is not an operation. It's not a difficult problem.

I think you have to remember when you get partial profiles, you'll always get adventitious matches.

We accept partial crime scene stain profiles onto the database if they have four loci, one in ten sizes which means when you challenge the database for some 200 or 300,000 samples, you are bound to get matches.

So you need to treat it in that knowledge. I think it's more a question of education rather than trying to be definitive.

Having said all that, we are going to move to a system which is more powerful to avoid the number of pairways comparisons, which should be around one in 10,000 million.

But we have gone through the education process, but again the stipulation from the Europeans is very strong and that should be one PCR reaction.

And, in fact, we have your two main contenders, ABP and Promega, bidding on a competitive basis for that business.

Briefly, charges. We set the charges at \$55 which have to be accepted by stakeholders. The government supported the startup costs but entirely on a loan return basis. So we paid money back and we paid interest on the money.

So the FSS and the other suppliers charge the police for what they do and recover the investment and costs.

The charge includes kits and storage for five years at minus 80 degrees after which we will have to renegotiate.

Let's talk a little bit about supplies and custodians, about safeguarding the information through quality processes and ongoing quality assurance and proficiency testing in a multisupplier situation.

So we have a national DNA database and the data is owned by the police. We look after it on behalf of the police. And ACPO stands for the Association of Chief Police Officers and that's all of the 43 chief police officers in England and Wales.

So they own the database. We act as custodian of that database and insure its quality. We also act as supplier.

Within Forensic Science Service, that's me and chief scientist.

And then we have other suppliers. There are two or three supplying profiles to the database.

Through us as custodian, we make recommendations to the police officers about how matches should be treated and the science that's required before you can join in and they set up a proficiency testing program.

You have to go through the proficiency testing program and gain some other accreditation which I'll describe in a second before you get approval from the chief police officers to supply data to the database. We have to do it as such as these people have to do it.

Very briefly, the test program consists of this: There's an independent audit to Namas, NIS 46 and 96. These are international standards, and most of you recognize ISO 25 and the ISO 9,000 series.

All of that is done by people that are outside forensic science and we zealously intended to guard that. Data scientists from other walks of life are examining forensic scientists and what they do according to these standards.

Now, the criticism of these standards, which I think was right three or four years ago but not so much now, is all you have to do is write down your process and that really didn't matter as long as you followed the processes that you wrote down.

There's many built standards in them now to make them a lot better.

Having got your accreditation, you then have to go through Proficiency Test 1 which is a simple test. You have 50 stains. You have 25 stains with which to match those stains of various types, semen and so on. And then you have to submit results.

It's not just a question of getting the results right. You have to submit the results. You have to submit all the data that you use to derive those results.

What we are looking for is not only getting it right but seeing that the lab is performing to a quality standard that is well above the baseline and is unlikely to make a mistake.

Proficiency Test 2 comprises 200 samples in duplicate, and again you have to submit all of the results of those.

And then there's an ongoing quality assurance program which consists of both declared samples where the quality assurance division sends you samples and says typos on a regular monthly basis but also undeclared which are through the police.

So buccal scrapes are given to police officers who submit them to the database as if they were standard buccal scrapes.

That's just required parts of administration because you've got to catch the matches before they're cut off. Otherwise, you can start recording fictitious people, certain crimes and certain police officers getting very excited about their matches. That's the system we use.

Intelligence screens which I said I'd mention, to date we have done 81 of these mass screens where we have taken a target population, asked men in that target population to volunteer samples.

There are 45 active as I speak now and 10 have been discontinued and we have examined more than 24,000 samples.

26 screens resulted in matches and prosecutions have either taken place or are pending as a result.

And the breakdown of these screen matches are nine murders and 17 rapes. So they're all important cases that DNA has become the investigative tool.

I have never understood why the culprit gives a sample, but it seems to happen because there's so much peer pressure around in these situations that they do.

The average number of samples submitted in any screens, in matched screens, is about 500. So it's a cost effective way of looking at serious crime. It does range from 30 to 4,500 but 90 percent is below 1,500.

I briefly showed you these numbers to begin with. What I want to do now is explore this 21,863 and then go on to talk about some force evaluations, police force evaluations. Oh, handouts. I always have to put a reminder.

I just thought I'd spend a couple of minutes taking you through this. You'll notice straight away that the numbers on this sheet are different than the numbers on the board as they were and that's because this sheet is the 23rd of the 5th and the board is the 30th of the 5th. Things do evolve week by week.

This is a standard printout that I use to just see what's going on. You'll see it talks in detail about the total number of CJ. CJ is a buccal stain and CJ is an acronym that I use.

It gives you the number of samples submitted in a week. It gives you from the beginning of the financial year and it gives you from April of '95 the total submitted.

We did get some unsuitable samples and the bulk of that 15,000 at the beginning of the start of the database.

You see that the total loaded in the next block is 318,000 and then we have removed further down 51,584. And the total retained on the database is 292,000. And then it gives you the crime stains on the database. And then it gives the intelligence screens in the next block, and then it gives you the matches.

What I'd like to draw your attention to is the snip-it below which is last week's reported matches include the following serious crimes.

And I cheated a little bit, not intentionally, but I picked up a sheet where we have match reports for two weeks.

The reason we did that is we actually moved one group of people from one party to another, and in doing so, we missed a week.

Murders, two; attempted murders, ten; supplying of drugs and so on; rapes, seven; others, seven; GBH, three.

So it deals with the serious cases and there are a lot of serious hits among the matches.

Going up to the box just above, the total reported matches, CJ to crime for the week was 444.

Now I want to put a little bit of color on that 21,000. Within that 21,000 will be partial matches.

And here you see the details of this is above. Of the 444, 43 involved partial crime scene stains and 26 crimes. So that means that there were 43 criminal justice samples matching 26 crime scene stains because the crime scene stains will be partial.

So sometimes a police officer will receive two names. They're quite used to coping with that. It's not a great disaster. And they say it's relatively easy either from geography or just asking a few basic questions to eliminate individuals very quickly.

So that's the data. If people want to ask me more during the day, I'd be happy to talk about it.

I wanted to put some anecdotal information up. The one thing we suffer from is because it's become routine and we are sending out 400 matches every week, we never get any feedback. It's hard to get feedback from police officers. They see it as part of everyday life now.

So I rang up a few. Here is just a few: Rape, suspect is traced to Ireland, arrested, confessed giving intimate details of the case.

Attempted murder, DNA evidence now enhanced by the fingerprint evidence and admission of offense.

Aggravated burglary after admission, suspect convicted for burglary and intent to rape.

Another rape suspect's house searched revealing corroborative evidence and subsequent ID.

In each case, they get the DNA information and they go for the extra evidence.

This is a figure I wouldn't dine a ditch over, but it's an interesting one. We then estimate up to 80 percent of the reports we send out result in guilty pleas.

The reason I'm saying that is for them to use the DNA as evidence, they have to collect another sample, send it in and get it analyzed.

When I looked at 16,754 matches, only 1500 went through the confirmation process so we rang and rang a few scientific support matches and said what happened. They said it's a burglary. You put it to the chaplain and he says, okay, you get a guilty plea and the case goes through which does worry me a little bit in that somebody could get overwhelmed by the DNA evidence and say yes to it. But that's how it's working at present.

This is a police force at the start of the evaluation process. They looked at their matches, and from the matches they obtained, 74 percent made a positive contribution to the detection.

50 primary detections accrued from a single hit. What that means in the UK is they go to an individual and say this DNA profile matches you and the individual then admits a further 50 to that point undetected. 8 secondary detections. Secondary detections are defined as the individuals who are already in prison. The information is put to them and they admit that.

And then the force has issued an evaluation form but the rate of return is poor. And I think again it's become part of life. I have that as a handout. I won't distribute it now but it shows you what the force is trying to do.

Matches by offense type. It's often said to me by people over here that it's all about burglaries. And to an extent it is true. It is all about burglaries.

This is from April '97 to January 1998. Murder/manslaughter, 24; rape, 83; serious robbery, 103; burglary in dwelling, 6,664; other burglaries, 6,049; and auto crimes, 2,492.

But if you look at these percentages and compare them with these first offenders, the categories don't always overlap so I struggle. But this is three percent of first offenders convicted for rape and other sexual offenses and here we have got .7 percent.

9.4 percent involve violence against the person and you can see the percentages dying there. 50 percent involve theft. And you can see within that theft would be other burglaries and the 6,000, 37 percent there. So the figures aren't too far away.

If you look at the crime statistics for the UK, we have very different crime statistics. We had 711 murders which related to .1 percent of the crime. I cheated slightly. I normalized those to 100 percent.

That corresponds to .15 percent matches of the murder/manslaughter on the database. 655 attempted murders and that corresponds to .02 on the database. The rape is .6 percent and .5 percent.

The one that's particularly low is the wounding, offense against persons. We have 1.2 percent and .27 percent. Some of the more enlightened forces are looking to stop collecting buccal scrapes for individuals involving wounding. They don't get any matches. It seems to be a criminal type that perhaps doesn't reoffend or is not involved in the kind of thing where buccal scrapes and databases are used for.

And burglaries, we have 520,000, 50 percent, 41 percent. Other burglary, 495,000, 47 percent and 37 percent.

So the matches on the database, which is the point I'm trying to make, tend to be about the same proportion as the crime statistics in general so it's kind of reflecting the overall crime statistics.

JUDGE ABRAHAMSON: What kind of sample is left at a burglary scene do you get that you can put into the database?

DR. DAVID WERRETT: Very often it's blood where they cut themselves breaking in, one to two percent of burglaries if you're breaking in somewhere at night. And other times, it's cigarettes and things like that.

Saliva and masks, we do get from robberies where you do get people charging out and go back, discarding things, jumping into vehicles.

JUSTICE ABRAHAMSON: What about the auto thefts, auto crimes?

DR. WERRETT: Auto thefts tend to be blood where people are smashing and breaking in.

I'll show you the breakdown of the evidence types that we are examining which has changed quite a bit.

I think DNA as a result has basically become part of the supply chain. Scene suspect, bit of intelligence to tell you about what you're supposed to do, an examination in the laboratory which is by comparison, reports to the crime prosecution service and then to court.

What's tending to happen now with the database is we are supplying information which identifies the scene suspect and we are starting to trail off down this route. And we are also supplying intelligence and then that goes to court.

So we have become very active within the whole investigative process as a result.

I want to just look at a couple of forces, Sussex and West Midlands, two different forces, not a very large population, 2 to 3 million people. And each force looked at what they got from the database.

Sussex first, from April '95 to September '97, although matches were received, because of our backlog, they were sometimes delayed by months. Only 30 percent of these resulted in primary detection.

It is particularly true in volume crime that if you can't offer a quick service, it's either history or they cleared it up in some other way.

So we got our act together a little bit by November '97 and we were sending out results by 28 days. And at the time of writing this, which was a little while back, the primary detection rate went to 70 percent and I think it's bigger now.

I checked the last ten reports and only one was previously detected so that was nine primary detections.

The effectiveness of the contribution to volume crime is highly dependent on the crime incidence.

In West Midlands, they had a special initiative, what they call street strike, and they decided they'd go out and collect buccal scrapes from anybody they could get them from and they had a special initiative of collecting stains from scenes of crime. So they tightened up on everything.

This is for their financial year, April through to March '97 -- sorry, through to December, April to December. And this is the number of matches we are sending to just one force. In November, it peaked to 323. Overall they submitted 12,400 samples from suspects, 2,500 scene stains.

And we sent back an incredible 1700 matches which was a 73 percent success rate for scene stains and I think it's just an example. If you can do it quickly and they're sampling the active population and you're doing the stains quickly, then the success is huge.

So a 73 percent success rate for scene stains and a 10 percent chance match for suspected samples being selected at the time.

And if you looked at November '97 alone closely, they recovered with 40 percent of these about 434,000 pounds worth of stolen property. And by the time they finished up other investigative leads, that's going to go to over a million pounds. The initiative cost them 74,000 pounds.

That was the breakdown for November, mainly burglaries and burglaries of buildings, break-ins, a rape and some sexual offenses and a robbery.

But the burglary, other, hiding behind that are some very serious cases. And this is one I just picked up. A post office armed robbery, shotgun and pick axe handles, saliva at scene, 15,000 stolen.

But I think you shouldn't forget that burglaries themselves can be big business, and here is an example of 14 linked burglaries with 50,000 pounds worth of goods.

And in some parts of the country, the percentage of burglaries that are linked to drug offending is just huge. And that's why the police officers are very keen on this type of analysis for drug offenders.

This graph I find very refreshing, and what I did was I plotted all of the 43 forces. This is the suspect to scene and scene to scene matches supplied to the forces. This is the number of crime stains profiled.

In other words, I'm plotting what they send in against the matches they received back. And each dot here represents one of the 43 forces. And what was nice to see was the line was virtually straight and the forces that were submitting a lot of stains hadn't got into the large returns. So the more they sent in, the more matches they got.

And to answer your question here, Madam Chairman, in fact, the kind of evidence, saliva stains, 10 percent; saliva, cigarettes; 27 percent. So that's about a 37 percent analysis of saliva which from my days when I remember doing good old ABO, two or three percent was where it was at.

So it's a huge shift in emphasis on evidence types being submitted by the police responding to this new source of evidence.

A little bit of back process flow, safeguarding the system. As I said, two buccal scrapes were taken. One is stored at minus 80 storage and one half extracted for analysis.

When we first looked at the whole system, we decided that the interpretation stage was likely to error or was the most likely part of a system to error. So we get it done independently by two

different operators. You can do this easily electronically. You can bring it together again for a third person to re-examine it.

So we do that and then we challenge the database. If we get a match, we say nothing and we take the thing through the whole process again. And then we report it.

We recently modified this such that this half is not completed for burglaries and other volume crime. We have looked at all that quality assurance. We have looked at all our error rates.

We said to the police our error rates are below one in 10,000; what do you want us to do, carry on doing this or no. And the agreement was we'd do this for serious crime but not for volume crime.

Remember, behind this report, they have to go out and collect another sample if they want to use it as evidence.

We -- our original plan was to put a out six STR's in there and then pop another set in here. But we decided with the multiprimers and the ability to combine up to ten in one multimix, that we would just go straight for ten STR's and not bother with a second separately.

The process is fairly simple. You collect it, administration. You extract it. You do the PCR and you load it onto the machine. You interpret it and then there's admin at the end.

We tended to divide that up into front end and back end which was a bad mistake. For anybody who wants to set up a database, don't call anything front end and back end. We had an immediate elitism with the back end people over the front end people. You're just a front ender, aren't you, we heard said on regular occasions.

So if we had a team of front and back enders qualified, about 16, we'll get about 25 to 35,000 profiles out of them per year. And what we'd like to do now is train people in the whole technique.

That means a huge investment in people because you cannot go out and advertise. You have to take graduates in and train them. To do the skill bit at the end, it takes for a good honors graduate a good three to four months. And it takes them about six months before they're really going full steam ahead.

So that was why we decided to rationalize the facilities and we went out to two sites. The WP's, working practices, both sides now work 24 hours a day. We have night shifts and we keep the machines running 24 hours.

And this is easily forgotten for the one unit which carries all the admin. About 30 percent of the staff are admin. A lot of the DNA databases are about handling information, sending out reports, dealing with customers and so on. That's easily forgotten.

I thought I'd stick this in for a bit of fun. What we are trying to do is move from a situation where individuals like this are just boringly repetitively doing the same thing day in and day out, extracting DNA until we have a nice machine that does the whole thing.

I must say I would hope to have been saying at this point because I have been showing this figure for the best part of the year now that we were doing the right-hand side, but it's very difficult to get the information and we hope to do that this year.

A huge advantage of the automation is that machines are good at doing boring, repetitive things and getting it right every time whereas people are not very good at that, especially people who are honors graduates.

The end process, we are also beginning to replace now. This is our expert system, STR, expert system. And what we are doing now is actually if I put up the process about geno type A and geno type B, we are getting an expert system to look at the results and replace this side of the process.

So the expert system will do all the menial tasks involved in the geno typing as well as all these silly little things that people have to do and check on both sides of the table.

We hope with the new systems, we can start actually doing the whole thing automatically with the geno type. So at that point, the price and the cost of doing analysis reduces hugely and we're halfway, I think, to where Jim Crow was talking about doing things automatically.

But you must not forget in talking about DNA, there's other forms of DNA. And we are really into mitochondrial analysis. We are thinking of creating small local databases because everybody knows that mitochondrial is not so discriminating. We are talking about one in a hundred or one in a thousand, but you could utilize the local databases as intelligence information.

We have some friends in the UK known as Nichols and Donnally who did interpretation of evidence and we did a joint project with them looking at mitochondrial because the claim was because it's solely inherited from the mother, you would get pockets of people with the same DNA if they were inbred.

So we looked at Ullapool and Welshpool and Helston. And it came up there wasn't any evidence of inbreeding in those areas.

And I paid Mr. Nichols to look at those. He was one of our fierce advocates and he found that in Welshpool, it was .97, Helston, .96, and Ullapool, .95.

We have launched mitochondrial DNA analysis as a mini sequencing method. I wanted to show you a few results where we looked at four burglaries and three premises. And why we picked on these is we are using mitochondrial for looking at feces examinations. You can't do that with STR's.

So we got four burglaries and feces found in each of these burglaries and three premises and one premise was done twice. It was over a three-month period, feces left at scene, and we analyzed it by mini sequencing.

Here we are going to show a nice cluster here with somebody being very active in the area.

Here are the results. With mini sequencing, we looked at twelve loci simultaneously. And you can see that this one is different from that one. If the color is different on the peak, it's different. Then this one is different from this one. And then this one is different from this one.

So these sets of feces, if that's the collective term for feces, are all different. There's something peculiar about homicidal burglaries. But the serious side of this is we will be collecting databases.

I think Barry mentioned using STR's or using any characteristics to predict skin color and that's another thing we are moving into.

Here we are using an SGM and using a five-plex to be racially distinct and putting the two together.

Essentially what we did was we said to the police send us some samples which you know the ethnic origin of and we'll predict the ethnic origin. And we did that with about 176 samples and the likelihood ratio was in right for 170 of those.

Now, these are probabilities and doing joint projects with police forces are about educating them in probability as much as testing the test. When you say to a policeman it's ten times more likely this individual is of the Caribbean origin, you also have to guide them in the target population.

If you have ten times as many white Caucasians in the target population as Caribbeans, at the end of the day the odds are even. And you have to explain all that to the investigative officer.

So we are going through an education process. But they think that they'll use it and don't use it at all. It's just as good evidence as saying I think it was a yellow car. It's the same kind of evidence.

Barry also mentioned red hair. And we have a program of actually trying to get down to the DNA's coding for the different characteristics. And again he looked at the biochemical pathway for color, hair color. He found single nucleotype polymorphism, diagnostic 50 percent of redhaired individuals.

So from the DNA, he can look at these single nucleotype polymorphisms and say this individual has red hair or 50 percent are red-haired individuals. So we are just dipping our toe in the water and trying to provide descriptions from DNA.

And finally, I think my dream which we are doing with the Defense Research Agency and Porton Down in the UK, chip technology basically.

So you have an input. You can use various silicone technologies to filter the DNA, carry out a PCR reaction, separation analysis to actually look at what you have got.

And then because it's on a silicone chip, you can put electronics on it. You can display the results and you can even communicate with the outside world if you're at the scene of a crime in charge of database. Five years away maybe but we have quite a big project running and everybody involved in this says it's technically very difficult.

But there's no reason why it couldn't be, but a good five years away.

That's it.

JUSTICE ABRAHAMSON: Thank you, Doctor.

MR. WOOLEY: How big is this?

(Whereupon, the response was inaudible.)

DR. REILLY: Has there been any serious discussion about collecting DNA samples?

DR. WERRETT: I wouldn't say it was serious discussion. It was an embarrassing discussion. The Police Superintendents Association called for the entire population to be DNA profiled.

This is my personal view of that rather than the Forensic Science Service but I don't think we differ too much. I think that's a step that you take after huge discussions within the general population. I think that raises all sorts of civil liberties issues.

That needs to be very carefully discussed so I'm quite happy with the situation.

The thing that disappointed me about calling for large databases like that, it tends to raise public suspicion and, therefore, jeopardizes the valuable work that you're doing now and particularly intelligence.

If people lose confidence in DNA and get suspicious about DNA, then they'll stop cooperating.

DR. REILLY: If I followed the slide presentation, in the normal course of events, you will have 30 percent of the male samples?

DR. WERRETT: I think that's probably right. The fingerprints database is said to be four to five million strong and still growing so yes, that's probably right.

JUSTICE ABRAHAMSON: We can count on you again.

PROFESSOR SCHECK: I think that from having heard this lecture a number of times --

JUSTICE ABRAHAMSON: Is it as good this time?

PROFESSOR SCHECK: It's always great. The numbers keep on going up. There are certain things I didn't quite get.

First, David, is it true -- I realize you don't have this broken down but when you switched from just doing typing of convicted offenders, we were talking here about people that were convicted of a crime much the way we have our own setup but switch to typing people who have been arrested, right, taking samples out after exoneration, was that when your matches of scenes to criminals appeared to --

DR. WERRETT: We never actually did it in stages like that. It's actually information we don't carry, whether someone is carrying a previous conviction.

It's why I looked at the demography of first offenses and what the demography of the database is. And they are remarkably similar and they're going down to an age group in the 14's. They must be sampling a fair number of people that are being processed for something but have yet not gained a conviction so they're in that suspect pool.

So it's a question that I have to start asking.

PROFESSOR SCHECK: The second question, to clarify, when you do the intelligence, you don't put, if I'm -- if we had a murder here, using an intelligence screen of everybody in this room for DNA, you don't put those in the database, do you?

DR. WERRETT: No, certainly not. You're given a little form which tells you that this will be used for elimination purposes for that particular crime only and that then it will be destroyed and that's what happens.

MR. CLARKE: Could you explain when you receive what I'll call a typical case that we receive or submit to agencies where you have a crime scene stain and suspect samples and there's a match made, that's considered a database match?

DR. WERRETT: No, it's not. Those are just crime cases that are going through the labs.

The only database match is where you get a stain from a scene which is undetected and an individual whose sample comes in for another case or for another reason is collected so he's suspected of a recordable crime. It doesn't involve biological evidence at all.

You put it on the database. It matches another scene. So the normal ones running through the labs, they don't count as matches because after all, you have a suspect. You have a crime scene. And the police often get that one right when you get matches there.

PROFESSOR SCHECK: Another clarifying question. You talked about the quality assurance that went into people that were supplying things for the database.

Is that distinct from the quality assurance that's done for case work and could you give us a notion of how much of the total budget of what we would normally consider a crime lab in the UK goes into quality assurance? It feels like a direct examination.

DR. WERRETT: The quality assurance program for the database that supplies to the database is distinct from the quality assurance program. It's quite simple except they use some of the same tools. For example, the case work is now mass accredited, BSI accredited just like the database is.

Incidentally, we all sat down and agreed with that regime. When I say all, the UK suppliers to the database.

We also agreed that if anybody was in error and seemed to be in error as a result of that program, they would stop processing immediately and there would be an immediate back check through all of their samples up to a date we felt was reasonable.

And they'd only reconvene processing when they went through the proficiency programming. They'd have to start from Square 1.

As to the percentage, I can't honestly say because it has gone out of my mind.

PROFESSOR SCHECK: Is the figure something like 25 percent?

DR. WERRETT: No, it's not that high.

PROFESSOR SCHECK: How high?

DR. WERRETT: In the one to five percent. You can tag controls on plates and all the rest. You can get it up to that kind of figure. But if you had quality assurance as in this proficiency program, it's probably two, three, four.

JUDGE ABRAHAMSON: Thank you. As you know, we are behind but I always figure it's going to catch up.

Debbie Smith and Bobby Smith. And Chris will introduce them.

Statement from Debbie Smith Crime Victim

MR. ASPLEN: After the first Commission meeting and we received the Attorney General's charge to move as quickly as we could, as quickly as we could to give recommendations to the Attorney General rather than wait two years in the life of the Commission to give those recommendations, after that meeting we started talking around the Commission staff about what things we could do and what were matters of greatest urgency.

And the database issue came up and the backlog of database issue came up. And there's a reason this meeting is structured the way it is today, that we provided kind of a vision of the potential database system.

And we are going to hear Paul's report on where we are at right now in the United States.

But I called Paul and I asked him if he would be willing to accept the challenge, if you will, to bring his people together quickly and talk about this backlog issue because it is of such great importance.

And he agreed to do that graciously and asked that the other members of his working group get together, put their heads together, and come up with the recommendation.

But in the course of our talking about it and we were just kind of talking amongst ourselves about the value of this and the preventative potential of it and how important it was.

And I said, you know, there are people out there who are being victimized that don't need to be victimized and he said, yeah, I know of some. And we started talking about the human aspect of it.

And we deal with this issue as Commissioners on an intellectual and on a professional level, and we look at the statistics. And unfortunately we do and we deal with them.

But I thought it was important to take some time today to view the real reason that we all are sitting around this table and that is because of the human aspect of it.

The real maximization of this technology means quite literally the saving of lives, human lives, in a way that we have never had the power to do before.

And Paul said when we talked about perhaps someone coming in and giving that perspective, Paul said, well, I do know someone who may be able to do that. And I asked Paul if he would contact the prosecutor and if I could get permission to call that person.

And that person is Debbie Smith, and Debbie Smith is here today to tell you what happened to her but I think more the value of the database system from the perspective of the victim.

I think just as importantly though, Debbie is not here alone. She is here with her husband, Robert. They are a team in this.

And my impression from the first time I spoke to both of them on the phone is that they have gotten through this ordeal as a team, working together, and as such, they appear before you today.

Needless to say, this is a matter of great courage and from the first time I spoke to Debbie about the possibility of coming and speaking to this group and explaining this is an open meeting, that this is a meeting of which the transcripts of which will go on the Internet word-for-word.

And her response was I have been looking for an opportunity for other people to benefit from what happened to me so it doesn't happen to them.

Again a tremendous amount of courage goes into her being here today, and I just want to thank you for that and for what you can do for this Commission.

MRS. SMITH: Again I'll pretty much read what I have here. If I don't, I probably won't get through this.

So first of all, I would like to express my appreciation for this invitation to this very important meeting and to those of you on the Commission for being willing to listen to my story, the story of an average, everyday housewife turned victim.

This room is filled with doctors and lawyers, scientists, judges, high-ranking political figures and law enforcement figures, and I feel somewhat displaced and very much overwhelmed.

But even with my lack of notoriety, each and every one of you knows who I am because I'm someone else. I'm the person that you read about in the newspaper. I'm the one that you hear about on the news and consciously or unconsciously say it's just somebody else and it will never happen to me.

And you'd be right because it always does happen to somebody else. But today or tomorrow, you or someone that you love could be someone else.

We all have a misconception that it just can't happen to me. I was probably in what could be considered one of the most -- one of the safest possible environments. It was in the middle of the day and I was in my home. It was around 1:00 p.m. I was in my home in a nice neighborhood in the City of Williamsburg which happens to be one of the safest towns in America.

My husband who is a police lieutenant was upstairs asleep after having been up over 24 hours. He worked the night shift and then had court that morning. So how can I be any safer?

But on May 3rd, 1989, Deborah Smith became someone else. And my life and the lives of my friends, my loved ones was changed forever.

It was a typical day in the life of any wife and mother. There was a light rain falling outside. I was in the middle of cleaning house, doing laundry. I was baking a cake for dinner with friends that evening.

My clothes dryer all of a sudden didn't seem to be working properly so I went outside to check the vent.

When I returned from checking the dryer vent, I decided to leave the back door unlocked, a door that's always locked, always. But I knew that I was going to return right away with the trash.

So I left that door unlocked. After all, I thought what could happen in just a few minutes, time for me to go in, gather the trash and come back out.

But before I could return, within moments, a stranger entered that open door and nearly destroyed and definitely changed my life forever.

This masked stranger forced me, forcibly took me out of my home to a wooded area. He blindfolded me, robbed me and repeatedly raped me.

This crime took less than one hour, has deprived me of the innocent outlook on life and my freedom. The sound of his voice rang through my ears as a deafening clamor, "Remember, I know where you live and I will come back if you tell anyone." But I did tell someone.

As soon as I was allowed to return home, I ran upstairs to where my husband was asleep and he woke up to the words, "He got me, Rob. He got me."

I begged him not to call the police, and I begged him not to tell anyone because I feared this man would return and that he would kill me.

But my husband, the police officer in my husband, knew that we couldn't let this go unreported. And he also convinced me of the importance of going to that hospital. But all I wanted to do was take a shower. I wanted to try to wash it away.

The hospital visit proved almost as violating as the actual crime. I was questioned. I was probed. I was plucked and scraped and swabbed, but I thank God every day for my husband's insistence of that trip to the hospital, for it sprung the results of the evidence gathered there that put this rapist behind bars forever.

For the first time in my life, I couldn't find any reason for wanting to live. The love of my family and my friends just didn't seem to be enough. Even my faith in God seemed to be failing me.

There was no escaping the pain, no escaping the fear. It was always there. It was there in my waking hours as well as in my dreams.

On many occasions since my rape, I awakened my husband in the middle of the night with the sound of blood curdling screams and the nightmares. I knew at that point that I could not and I would not live this way and it seemed my only alternative was death.

Death seemed to me the only answer that would end this nightmare for me but it would have to be short and final. I decided a gun would be my answer, over and over again I planted in my head.

But there was always one problem that I just couldn't find a solution to. And that was my husband and my two children.

I just kept thinking about what this would do to them. And I couldn't bear the thought of the fact that they would have to endure the same kind of pain that I was feeling. So I finally grabbed onto that one little thread and it became my reason to live.

One of the most frequent comments that I heard right after this incident was at least you're alive, but I'm sitting here telling you today that I was alive physically, but I had died inside. And I had actually wished and cursed my attacker for not taking my life and relieving me of this pain.

This intruder never laid a physical hand on anyone else in my family besides me. But when he left, he left each and every one of us a victim.

He touched emotions within us that we never felt before. Suddenly there was rage in the eyes of my son. My daughter was afraid to go from the porch to the driveway after dark.

And each of us, especially my husband, felt the awful pain of guilt. He felt as if he could protect the whole city but yet he was unable to protect his own wife in our own home.

My son was remorseful because the attacker had used the baseball bat that he had neglected to put away. I felt responsible because I had left the door unlocked for those brief but life changing moments.

Our home which had always been filled with love and laughter had now become a house of anger and fear and guilt.

But my family and I weren't the only victims that day. Every person that touched my life or my family's life was to feel the effect of this crime. They no longer felt safe and they too felt invaded.

I could see the pain in their eyes because I was a constant reminder that it can happen to anyone. They would guard their words so that they wouldn't say or do anything to upset me. They were angry for me and yet they felt helpless because there was nothing that they could do.

I often found myself comforting them. We all wanted to understand and yet there seemed to be no understanding.

I waited daily to hear news that they had found this man that had changed our lives, but it seemed like the news would never come. Those days turned into weeks. The weeks turned into months and the months turned into years.

I lived in constant fear of his return, hearing his words over and over again in my head: I know where you live and I will come back and I'll kill you.

The Williamsburg Police Department followed up every lead and every clue they had, and they always seemed to come up empty-handed.

Even my mind began to make me doubt myself. I kept thinking did it really happen or was this all some horrible, horrible nightmare; do they believe me or are they also doubting my words as I was doubting myself.

But in my heart, I knew that it wasn't some nightmare that was going to fade away with time but that was going to be with me forever.

I began to understand that the quality of life that I had once enjoyed would never be restored.

I craved peace of mind and did everything I could think of to attain that. An alarm system was installed in our home including panic buttons throughout the house as well as one I could wear around my neck. The privacy fence was put around our backyard and motion detectors were installed.

At one point, I even took to carrying a gun. But I did away with that because when you go after your checkbook and you have to move a .38 out of the way, the clerks tend to get a little nervous. So I quit carrying that with me.

But my biggest fear was that because I had become so paranoid and so fearful for my life, I was afraid I'd hurt some innocent person if they got too close or if they came up from behind me.

There just didn't seem to be any way to attain this peace and rest that my mind and my body craved for so long.

I began to wonder how I was ever going to be able to really live again. I would suffer daily with the memory of a man who was in my life for such a short span of time and he may never have to pay for this crime, but I was going to have to pay for it forever.

I can tell you that it is only by the grace of God that I am here today. For six and a half years, I simply existed trying to go on and live life as normal.

But there was never any true peace until July 26, 1995, when my husband walked into our living room and he handed me a composite that he had carried with him ever since the incident. And he told me I could throw it away because we weren't going to need it anymore.

A forensic scientist for the State of Virginia had discovered a match with the DNA databank. He was in jail and he was serving time for abduction and robbery. He couldn't come after me anymore. He was no longer a threat.

For the first time in six and a half years, I could feel myself breathe. I felt validated. It was a real name and a real face to go with the nightmare.

Everyone would know that I was telling the truth, that it was real. Finally I could quit looking over my shoulder. No longer did I have to drive around in circles hoping a neighbor would drive by so I could get the courage to get out of my car to go to my own front door if there was no one else home.

Unfamiliar noises no longer left me panic-stricken. I no longer scanned faces in a crowd to see if he was following me. Suicide was no longer a consideration.

And my husband is grateful that I don't wake him up anymore in the middle of the night with the ear-piercing screams. Within myself, the healing had begun and peace had come at last.

I later found out that this attacker had been put in jail only months after he tore my life apart.

I lost six years of my life to fear because of the backlog of DNA samples. And this is the reason that I'm here today.

I'm not here for myself because DNA has already done for me what it has been set up to do. And I wouldn't be here for myself today because it's much too painful.

And this is -- to sit here before you is not something that I'm very used to doing. But I'm here for all of the victims who are still waiting for that news, that a match has been found.

And I feel that I would be remiss if I did not do everything I could to help them get their answers as soon as possible.

Every day that they have to wait is another day that's been stolen from their lives. I want you to understand that I'm not saying in any way that DNA is a cure-all for victims because the healing process for each victim is unique to that person.

But the healing process begins at the solving of these cases, and DNA, I believe, is the greatest means to that end.

There are very few times in our lives when we can truly help those who are hurting. We often say let me know if I can help you in any way.

Today we have a technology to ease their pain and help them to begin their healing process much sooner. It's my understanding that we can cut a six-year backlog down to two years. This four-year difference may not seem like a lot of time in the span of a lifetime.

To my heart that's ridden with fear, it's an eternity. And to some it may seem unbearable. They may not have that thread of hope that I was able to grab onto, the love and support of my family and friends. The thoughts and plans of suicide may for them become a reality.

But we have within our grasp the opportunity to give them the peace that they crave and they need and to protect those that may be future victims by convicting the guilty or keeping the convicted already in jail.

What a priceless gift this is. This Commission is concerned with the future of DNA evidence while the only hope of some people lies within the DNA evidence.

As a victim who has experienced both the before and aftereffects of the hideous crime, I implore you as a Commission to do all that you can as soon as you can.

And if I have said anything that would help to convince you of this, then the six years of torment that I suffered will (inaudible). Thank you.

CHRISTOPHER ASPLEN: Debbie, it's fair to say that with thanks to you, the point could not have been made any more clearly than the way you made it.

Again it was with a tremendous amount of courage that you come to us and it is with a tremendous amount of respect that we will treat what you have given us and do all that we can to do what you have asked us to do, and that is to keep this from happening to others and to give people that peace of mind so we thank you.

Why don't we take about a ten-minute recess?

(A break was taken.)

## **CODIS Backlog Elimination Report**

Dr. Paul Ferrara, Chair, Laboratory Funding Working Group

HON. SHIRLEY ABRAHAMSON: Paul, you're going to talk about a proposal on backlog elimination, and there was a report in the packet we all received.

DR. PAUL FERRARA: The full text of our report is being sent to all the members and this will be a very quick review of what is contained in that report.

The working group consists of myself, Cecelia Crouse who is our reporter from the Palm Beach sheriff's office crime laboratory, Woody Clarke with an E, Barry Fisher with the Los Angeles County sheriff's office and also president of the American Academy of Forensic Science.

During the course of our first meeting, we decided that we needed and asked for and received the services of Steve Neizgoda who is now a member of our working group and finally Dick Weed with the Alabama Medical Examiner's Office.

Very quickly, the purpose of our working group was to provide the Commission with information regarding the financial issues that we felt were -- that would be involved in increasing the utilization of the DNA technology, specifically in terms of how do we quickly eliminate the database backlog, that is, the backlog of convicted felons or arrestee samples that exist throughout the United States, how do we expedite the analysis of crime scene evidence, all within a very short period of time.

Without going into a lot of explanation, I think we all, certainly from Debbie's presentation, understand the need for expediting crime scene analysis as well as convicted felon samples and entering those STR profiles into the CODIS system.

We in the United States have a considerable problem. I won't call it a crisis. Some media would call it a crisis, but we are seriously behind because of limited capacity in our laboratories.

Hundreds of thousands of databank samples are sitting in laboratories all over the U.S. In your handout package, you have a breakdown of those samples across the U.S.

In addition to that, we have got tens of thousands of crime scene cases and samples also languishing in backlogs throughout the United States.

These backlogs are on crime scene samples or databank samples for that matter, but particularly for crime scene samples translates to a 6- to 18-month backlog for crime scene evidence without priority being given to that sample.

As a result of these long turnaround times, laboratories like my own are running into being incapable of meeting speedy trial requirements, in Virginia 150 days if that is not waived.

In addition to that, unsub cases or those cases without suspects, cold cases or post-conviction cases as well as current cases are languishing in those backlogs.

As a result, bottom line, you have innocent people being held in jails awaiting trial. And the guilty parties are remaining free for extended periods of time due to these backlogs.

For purposes of discussion, the working group -- now this working group was just formed approximately three weeks ago. We have only had one meeting via teleconference, spent about two hours on the telephone trying to get a handle on exactly how to approach this particular situation.

We broke the problem down into a bifurcated or dual-pronged approach to resolving these issues. When I say priority one, I don't necessarily mean this is more important than the other priority, but we said first and foremost, let's address the issue of entering convicted felon profiles in CODIS.

We took it as the first priority because we felt that there is an easy solution, a relatively easy solution available to reduce the backlogs of convicted felon samples. We had much better data available with respect to the convicted felon samples.

And again looking at the charts, we know that in excess of a half a million convicted felon samples have been collected.

We also know that with respect to the cost associated with doing -- with profiling these particular types of samples, that the cost is going to be less than \$50 per sample.

Part of this is based on -- most of this is based on information from a few laboratories who have chosen to outsource these samples to laboratories in private sectors.

I recently let a contract with voting technologies in Springfield, Virginia, to run 70,000 of my backlog samples in Virginia at eight STR loci, a single amplification at this point. The bid price was \$24 per sample.

Extrapolating that to a second amplification, one can easily see that the cost should be probably closer to \$40 per sample and that's with existing technology. Keep that in mind.

Samples, the convicted felon samples, we can consider to be clinical samples insofar as they all exist as clean, pristine samples, whether they be saliva or blood samples taken from felons, not crime scene samples which are as we all know much more complicated and much more difficult to examine and analyze.

And lastly, we felt that with respect to the database, the larger the database of appropriate samples, obviously the greater the number of hits. As we saw in Dave's talk, they haven't reached the point of diminishing returns.

We, therefore, considered what is a quick short-term solution to eliminating or reducing the backlog of convicted felon samples sitting in backlogs.

We realized that the larger the capacity of laboratories, the greater the speed with which the backlogs can be reduced.

We also recognize that the greater the experience that a laboratory has in performing this type of analysis, particularly with again clinical samples, the lower the cost would be.

We felt that by outsourcing convicted felon samples to laboratories, qualified laboratories in the private sector, that would allow the forensic scientists in the public forensic science laboratories to concentrate on forensic crime scene samples, past and current.

The beauty of this particular approach is so often we want to throw money at a problem. We can throw money at crime scene samples and we'll have to throw money but that money alone is not going to solve that problem in the short term.

However, by taking the approach of contracting with private laboratories to run those convicted felon samples while we in the forensic science laboratories concentrate on case work, that simply with the infusion of money or contracting, the backlog of convicted felon samples can be reduced quickly and dramatically.

We also felt that with proper preparation of invitations for bid or requests for proposals, that quality work for these samples can be assured.

We also examined, well, what are some of the -- what's the downside of outsourcing particular samples? One is that the forensic science laboratories and other directors like myself have expressed or experienced concerns over the quality of work provided by a low bid laboratory.

Government agencies were all quite aware of the quality that may be associated with the lowest bid. In some states, that outsourcing of samples to a private laboratory may be precluded by state law or state policies.

Control of the samples themselves is problematic, maintaining the chain of custody and the integrity of the samples in a process whereby the samples leave the forensic laboratories and go to a private laboratory is something that has to be concerned and considered.

And quite frankly, some public forensic science laboratories have already uncovered some bad experiences with outsourcing samples of this nature.

So we then turned around and said, okay, what can we do to assure the quality of data in the sample control.

We answered that by suggesting some requirements that the public forensic science laboratories used in developing their invitation for bid, specifically require that the laboratory performing this work be accredited by ASCLD-LAB or the NFSTC. Require the laboratory to adhere to the DNA's advisory board's quality assurance standards for convicted offender DNA databasing laboratories.

Third, review the data in the public forensic science laboratory using the guidelines for acceptance of DNA data into CODIS.

And finally conduct audits, submit random duplicate samples and assure compliance by the contract laboratory to the specifications developed by the forensic science laboratory.

The more difficult, the more intractable problem that forensic science laboratories face all over the country and certainly our working group could only discuss in general terms was what to do about the tremendous problem regarding backlogs of crime scene evidence.

Any way you cut it, no matter how much money we throw at it, it's a much longer term problem to solve, a very complex problem to solve.

We don't have good, hard data right now on the volume of these kinds of samples. We can talk about numbers of cases that laboratories have backlogged.

In Virginia, I've got probably one of the larger DNA problems in the U.S., and yet I have a 700 case backlog at any given time.

Regardless of the number of cases, the number of samples and items within each case that is now amenable to probative DNA analysis is skyrocketing. We are hearing about saliva. We are talking about cigarette butts.

We are talking about minute samples which five years ago, no analysis would even be attempted. Now we can get probative results on increasing numbers of samples within that.

And then let's look at what the future holds in terms of additional work. Increases in looking at crimes, lesser crimes, post conviction, greater number of post-conviction cases, cold cases, et cetera.

It's going to require a combination of looking at, improving, developing improved facilities in which this work can be conducted, equipping those laboratory facilities with the necessary equipment, education and training of examiners.

To complicate matters, you can't look at DNA testing on case work in isolation without consideration of the impact of other forensic disciplines. Other examinations often have to be conducted before you get to the DNA analysis.

Yet, the analysis of crime scene evidence is critical to the effectiveness of CODIS. There's no sense in having a grandiose databank if you aren't running unsub cases nor is there much benefit to running unsub cases without having a databank to search from again.

We recognize that the implementation -- the problem is not hopeless. The implementation of STR's will replace maintaining multiple DNA systems as we currently or up until recently were maintaining.

With the advent of the STR's, for example, in Virginia, we dropped RFLP. We dropped QTL, dropped D1S80 and now we can concentrate and run everything with STR's.

The forensic science community has settled upon and established a standardized 13 STR loci which currently will require two amplifications.

The real advantage and hope and promise even in this field is that we will eventually have a single amplification, that we can get to all 13 loci in one fell swoop.

Again to complicate matters, we must not forget about mitochondrial DNA, not only the power and the need for mitochondrial DNA but the increase and usage of it particularly in hair identifications.

What has been done thus far to address this issue of backlogs in crime scene samples? Well, fortunately in 1990, we had the 1994 DNA Identification Act which did provide or is providing an infusion of approximately 45 million dollars to the public forensic science laboratories to develop or enhance the development of DNA programs within public forensic science laboratories. We are about halfway through that particular act.

The Bureau of Justice Statistics is in the process of preparing a survey instrument to try to gather harder data on the degree of the backlog of convicted felon samples and case work and is designed hopefully to get a little bit better handle on exactly how much work is out there and what's going to be necessary to resolve this issue.

For the last year or more, there has been a tremendous support for a National Forensic Science Improvement Act which would provide broad-based funding to public -- to some 600 public forensic science laboratories and medical examiner offices across the country to the tune of approximately -- it started out at about 500 million dollars a year over five years.

That act, despite tremendous support, is on the ropes because it doesn't have a sponsor.

A new promise perhaps might be found in the Crime Identification Technology Act of 1998, senate bill 2,022 which was introduced by Senator DeWine of Ohio and has actually passed the Senate Judiciary Committee.

Now, that particular act contains -- only one of, I believe, 16 elements is actually aimed at forensic science laboratories themselves and that one particularly is in terms of improving the usage of the DNA technology.

In short, what are the recommendations of our group as a result of the first meeting? One, an immediate infusion of funding for STR profiling of convicted felon samples is necessary.

Two, the recommendation of our working group is to use this money to outsource or contract this work to qualified laboratories, laboratories meaning a specific set of standards.

Thirdly, that we lobby for the passage of either or both the National Forensic Science Laboratory Improvement Act and the Crime Identification Technology Act.

I might point out that in discussions I've had with senate finance people, the fact of the matter is the reality is when you're talking 300 million dollars a year for five years, introduction of these bills is very nice for raising the issue, but the likelihood of them passing with any significant amount of money in my estimation from my discussions is slim to none.

So what must we do? We can develop better data on the current and future work loads that we are going to be looking at.

And finally and one of the most difficult but I think one of the things that's most necessary for a concentrated effort is to enhance the education and training efforts for new forensic science, forensic DNA examiners.

Virginia's experience has been I've got money, I've got facilities, I've got supplies, I have got equipment but I do not have and what are very difficult to find are fully qualified, high quality experienced DNA examiners.

And we can throw money, again as much as you want, but I think one of the most critical elements and recommendations is to take steps to increase the number of examiners.

And with that, I will conclude and open the floor for any discussions.

JUSTICE ABRAHAMSON: Dr. Crouse, do you want to add anything?

DR. CROUSE: I would like to say that we did discuss at length the idea that looking at case work funding would be very, very difficult. And that's why we decided to concentrate on the CODIS issue.

I personally take case work from the time I get it from the detective to the courtroom. So we have some ideas but that's really a tough issue.

MR. GAHN: I have one comment. When you talk about the crime scene samples, I wonder if we might want to get the other group, the law enforcement people, involved in this.

I know I can give you some experience back in Milwaukee, it's sort of fluid when they talk about this case a little bit. They have that city.

Some of these are viable cases that are sitting in the evidence room. Some are not. Some never will be. I think you have to get a motive with your police. We have them in Milwaukee, stick with them and stuck with it for years, get the results to the crime lab and get them analyzed.

And then you have to go through and prioritize them. Oftentimes I don't know -- it may not be that many cases that are viable to put into the system once you start looking at them. I think the police has to take a good look at that inventory.

So it may not be as bad as we think; is that fair to say?

DR. FERRARA: No. I think it's as bad as --

MR. GAHN: Never mind.

DR. FERRARA: I don't mean to be flippant, Norm. I think for ten years in Virginia, we have been prioritizing cases.

We have reached the point where everything is prioritized and prosecutors particularly are demanding more and more examinations of items of evidence.

If they don't, then the defense will so the volume of work that is being conducted on cases seems to be increasing with each and every case. And we keep increasing our resources and still falling further and further behind.

So meanwhile certainly if the situation was that there was a 6- to 18-month average backlog without the prioritization, obviously the problem would be in a crisis state.

So I don't disagree that -- and I think most of the other laboratories would agree that were it not for working closely with law enforcement agencies, prosecutors, and the defense and the courts and trying to prioritize cases, that indeed we would be in very deep trouble.

What I'm finding in Virginia is now cases that weren't given that priority are coming up and we are not capable of -- we are not meeting demands. Cases are going to be lost. Prosecutors' hands are being tied. Innocent people are being held. I've had all of those situations occur because some other case got priority.

I think we are in a serious problem in the U.S. with respect to case work, and I think about the convicted felon sample, the problem lends itself to a relatively easy solution.

If we look at a backlog of, let's say, Steve, 300,000 -- let's say we have 300,000 samples, convicted felon samples, sitting on backlogs, with an infusion at 50 bucks a sample, only 15 million dollars or less within a year's time, I think we can wipe out that backlog.

15 million dollars to forensic science DNA sections ain't going to buy you squat.

And even if you had ten times that amount of money, it's going to be years before we get out of this problem.

DR. CROUSE: I'd just like to add to that. I'm in a very progressive situation where the citizens of Palm Beach County want the technology and they want a supporter.

So when we got involved in the NIJ grant, it was under the promise that they would give us someone to work backlog cases.

And we finally got that individual in October, and she is doing nothing but going back to -- we technically have a 60-year backlog. We work on emergency cases. That's all we do.

So as this person has been working these cases, you're right, Norm, there are cases that are adjudicated that we don't even know about because we don't have a way to know that in our system.

There are cases in which the victim is gone and will never come back and here we are not sure what works.

So what we didn't anticipate was the new person coming on and being on the phone constantly, being on our computer system constantly. That's like 30, 40 percent of her time is tracking down the cases to see if she should do them and it has really caused havoc.

And she is coming up with cases in which she finds semen and then we have to go back and tell the detective and now they're busy and they can't get involved and we have run into that.

MR. THOMA: David brought up a good point about administrative costs being a little more than you might think otherwise to have people involved that aren't technologists or scientists and to follow things like that so it doesn't happen. That's a good point to bring up.

JUDGE REINSTEIN: Why would you be using -- I may be missing something -- the lab technician or scientist to do the investigation on the backlog cases when you could use somebody from a school doing graduate work or undergrad to investigate?

DR. CROUSE: We were given access to an administrative secretary, and we were thrilled because she was so experienced. And we took down -- we didn't want to have to do that. She's not a technician. She's a full-fledged forensic scientist that can be trained.

And what we did was we took the time on Saturday and Sunday and went through every case file and started pulling them.

And we put them in huge boxes and took them down to the administrative secretary and said we are going to be back on a weekly basis. Four months later, she called two people that have not called back.

So then we asked for somebody else. This isn't working. The problem is people want to help verbally and they won't let anybody into our laboratory unless they undergo background checks, polygraph tests, and all this other stuff.

They won't let them into the system which is a great thing. We don't want anybody in there who hasn't gone through these checks, but people aren't willing to do that.

MS. BASHINSKI: I have a couple of issues.

First of all, I absolutely agree that the backlog of offender samples is a tractable problem and that funding will work. I think, however, there may be a variety of solutions. Outsourcing is one obvious one. There may be some laboratories that have the capacity given the funding to do those samples in-house.

And I would say that one of the ways in which you develop forensic scientists and train people can be to have them work on databank samples.

I don't think that we should forget the administrative overhead as was mentioned earlier. There is a significant amount of time and energy that has to be put in by the laboratory, by people who have been properly backgrounded and can handle sensitive and confidential information in order to ensure that these samples are properly logged, properly accounted for, properly presented to a reference laboratory.

So, you know, I think simply saying outsourcing and saying give a laboratory X amount of money to pay a contractor doesn't totally deal with all of the administrative and other issues.

And I would say that we need to look at the data, one solution among several. But funding is the issue.

In terms of case work, I think we might want to think out of the box a bit as to how we might handle some types of case samples.

Some types of case samples such as swabs that are collected in emergency rooms from victims can be thought of in some senses similar to a way a clinical sample is thought of.

And I would argue that we should also be looking at are there ways we can look at some parts of evidence in some cases in a more clinical fashion and get a higher throughput. And here I'm referring to those 50 percent of the cases which is not going to go into any laboratory because there aren't investigative leads.

We are talking thousands. Barry Fisher has 10,000 unworked ray kits sitting in the Los Angeles sheriff's office property room. So we need to look at the case evidence a little differently too.

Whether it's outsource or done in-house, maybe that's also amenable, at least part of it, to more automation and more of a clinical approach.

PROFESSOR SCHECK: I agree with everything Jan just said, but I didn't mean this as a criticism, I'm sure you understand, but I thought that when I read the proposal, I thought I'd write just a few thoughts based on what I knew Dr. Werrett was going to present to you and give a somewhat different perspective on this.

It seems to me that what you really need here is a lot of smart investment.

And if you think about this problem based particularly on the data that Dr. Werrett gave us, we know that talking in terms of priorities, nothing is more important than the rapid turnaround of crime scene samples and new cases coming in.

For the reasons Paul mentioned, it's inexcusable to have a case sitting around for 14 or 15 months where you can either make the case or exonerate somebody and that has to be our first priority.

And we have to face a considerable problem, that in order to implement an STR databank, the people doing the case work have to do STR's and that is not the predominant technology right now with our public labs. We have to face up to that fact.

In terms of typing convicted offenders and getting to the backlog, it seems to me that the most sensible thing to do is to turn to states and say get us all the people that are coming in on supervised release.

When we started approaching this problem in New York, we thought that was the first priority in terms of typing.

But what you'll find is unless you start looking at systems like Dr. Werrett was suggesting, the kits for taking the buccal swabs and everything else, people who run the parole department if you still have it and probation are not necessarily, you know, competent to do this. You have to invent an institution to take the samples and do it in a highly secure manner.

But I submit to you common sense tells you this is the most important thing to do because these are the people out on the streets committing crimes and it's lunacy not to type them first. It's a waste of money to go back and I don't care if you get it down to \$40 where it's only 15 million.

If you can cut that 15 million figure by just doing people on supervised release, probation, the ones in the community or the people that are about to be released and even the people that are now just coming into the system after -- who have just been convicted because they're the ones who are most likely to have other crimes most recently out there that were committed that they were never caught for, you should prioritize in typing those people.

It is a waste of money to type somebody in jail who is doing 40 years.

So even in the compelling case that was presented to us by Mrs. Smith, the only reason you get a hit in that case as Paul explained to you before is that there was a suspect who was excluded. That's why the profile was in the system in the first place.

Otherwise, you would have never gotten to that case because it would have been an old, unsolved case.

So before you start typing people that are, you know, doing 40 years in jail and not likely to get out and had been in there for quite some period of time, the first priority before that in my mind is to go back to the old unsolved cases.

And I would suggest that cops should be doing it. There's got to be an old unsolved dead case like the New York City Police Department involving the Colpack case.

The most famous case is the one in California where they went and they looked at the five unsolved homicides, the Kevin Green case, because of the five unsolved rape homicides.

So a police intelligence led that kind of reinvestigation. So I would suggest in terms of this money and I have no particular views about outsourcing versus one big regional lab as Dr. Werrett was suggesting because we have to be very particularized in what things we are going to do first and target that money intelligently.

And we will get a better return on it if we target it intelligently. But if we blow a lot of money and type a lot of people and so we can come back and say look at what we did with the backlog is to me a misplaced priority.

DR. CROUSE: I just have one comment on doing things intelligently. I've always liked that idea. We service 35 agencies and there's only one agency that does old case work, one and that's all.

So it's really very difficult to ask the police agencies, all these 34 police agencies to be intelligent when they're -- they don't even remember some of these people.

When we started in 1998, cases were unsolved. We started in 1998 and worked our way back to '97, '96.

PROFESSOR SCHECK: It's not your fault.

DR. CROUSE: I know. I know.

JUSTICE ABRAHAMSON: But you have to live with it.

DR. CROUSE: Oh, yeah.

JUSTICE ABRAHAMSON: Paul, do you want to comment?

DR. FERRARA: In the interest of moving things along, I think I'll just let it drop at this point.

MR. NIEZGODA: My name is Steve Niezgoda. I'm with the FBI laboratory, CODIS program manager.

And I have two points. I think what you bring up, Mr. Scheck, is true, but I think there's two problems. Collection is a totally separate problem from analysis.

So it's kind of mixing apples and oranges. Maybe in the big picture, it's not. But in terms of what you're going to analyze, the first thing you have to do is collect and collecting the parolees and those already out is much tougher. You have a collection issue.

PROFESSOR SCHECK: I know that.

MR. NIEZGODA: So whether or not you solve the collection issue, there's still 300,000 samples, which could solve crimes.

Then my second point is the convicted offenders. The analysis samples lends itself to economies of scale so it would be more efficient from a financial perspective to have one or two big contracts serving many states rather than giving money to every little state contract in the room.

So then you're holding the power. You can squeeze your suppliers, do all those things, give the best price you can. So we can think of larger contracts rather than one per se.

PROFESSOR SCHECK: But I'm curious about that. In your experience, when you talk about collection and analysis, we are only talking here about offenders; we are not talking about --

MR. NIEZGODA: Correct.

PROFESSOR SCHECK: Even if it costs more money, don't you think you're going to get much more in return in terms of catching criminals and preventing future crimes if you type from the street someone or in typing somebody who is doing 40 years?

The incremental difference between getting the typing of somebody on probation with another \$5 per sample versus typing a whole bunch of people that are doing life, I don't understand it.

MR. NIEZGODA: I agree with what you're saying. However, solving that collection problem, I think, is a multiyear problem educating agencies.

You can look at the State of Florida, ask them their experience on getting all the samples that are eligible to collect. To collect samples is not a trivial problem and it's educating the prison systems, the probation.

So logistically it is a tough problem.

JUSTICE ABRAHAMSON: Paul.

DR. FERRARA: I don't disagree because we prioritized the samples. 10,000 that we had in our database were chosen on the basis of particularly not so much the crime they had committed but when they were going to be coming and getting out.

But just to point out, Norman Jinderson is serving 161 years. That's the man who raped Debbie Smith, so, you know, I still agree, you're right. It makes sense. But how do you pick and choose?

If you can spend 40, 50 bucks, I think 15 million dollars is a small sum of money. We are making 60 percent of our hits against burglars and breaking and entering. And those are hits on rape and murder cases.

So those people aren't going to be spending much time in prison. So by the time you get a sample, you might as well be running late because they're going to be out there in a fairly short order on B and E's.

I think the point of our working group is that problem lends itself to an easier solution than case work. And I think the case work -- I know our working group would like some direction on where we should go next because one thing, all we have is plenty of issues and complexities dealing with how -- what are we going to do about case work because the case work situation is only going to get worse instead of better even with the advent of the STR's which I'm still hoping -- we hope maybe it's in a double capacity of our existing lab, 50 percent. Not much.

So we need -- that's a problem that's got to be addressed, but there is no short-term solution. Short term we can do something about the convicted felons.

JUSTICE ABRAHAMSON: Jerry, Phil and then Ron.

MR. THOMA: Jeff.

JUSTICE ABRAHAMSON: I'm sorry.

MR. THOMA: Just basically I have to agree totally with Barry here. For example, in California we have got the state parole board which is a huge organization. It's a statewide organization with parole agents that literally could be taught this technology and be able to get samples.

And it would be very effective with regard to those individuals that are probably the most likely to reoffend.

I agree it is a problem of scale, but with regard to if we have the least amount of money and, Paul, I think your concern about having the resources is genuine. We might as well start somewhere where it would be the most effective.

And those people to be released within the next year or two or just being released would probably be the most effective. But I agree if we could, go forward and do it all. But I don't think it looks like we can do that yet.

DR. REILLY: Based on what I'm hearing, I think it's a mistake to base this on an either/or discussion.

It seems to me talented forensic scientists should never again process a pristine sample in a backlog, that case work analysis should be done by the people best able to do it now.

The problem of processing 300,000 pristine backlog samples is trivial. It is trivial, and as long as you don't get 600 labs each fighting to run their own 500 to 5,000 analyses.

I think the English system makes tremendous sense to me. There's an excellent precedent for this, in screening genetic disorders in the United States. In the United States, this year as we talk,

there will be nearly 25 million genetic tests done on 4.1 million people. These are not DNA based for the most part although we are heading in that direction.

These are done by approximately seven regional consortium of states. New England, five states, give all their samples to one lab. This is not difficult, and it should not be either/or. It should not be to the exclusion.

JUSTICE ABRAHAMSON: Ron.

JUDGE REINSTEIN: Well, I agree with Dr. Reilly. Chris told me before that there's a real issue right now regarding the budget time line, that it's almost too late at this point. And if it is too late, you have to wait a year.

MR. ASPLEN: In terms of funding, if there were funding for something like this --

JUDGE REINSTEIN: 15 million dollars which is a drop in the bucket.

MR. ASPLEN: The budgetary process right now is in full swing for the next year.

Now, if a recommendation was made and accepted regarding a funding program to reduce the backlog and it was suggested to the Attorney General that they find money for that, there are sources from which you could take it.

But if it was an appropriations issue, we are in the middle of the funding cycle. As such, if it doesn't happen now, it takes a while. We are into the next funding cycle next year.

JUDGE REINSTEIN: It would seem to me that if we move forward quickly on the 15 million dollars, it might be as low as 12 million dollars on this as far as a recommendation goes.

And then with time, within the next year or so, then you do Barry's issue which is get the people who as Dr. Werrett said are the people who are most likely to reoffend, the people coming out from a release, people who are on probation, people who are recidivists in the system.

And in the meantime, you get that money up-front and solve this issue as quickly as possible.

MR. ASPLEN: I think to some extent it's also an exercise in the difference between what is doable and what we may be able to influence but have somewhat less control over in terms of what Barry was talking about.

And I too agree in terms of in the best case scenario if we could effect quickly with a large source of funding the priorities that Barry sets out, that's clearly the wise way to do it.

However, there are clear benefits to reducing the CODIS backlog. Barry, you use the 40-year example and the life sample. I'm not sure and maybe it would be of benefit for us to know what the average sentences are on these individuals.

I'm not sure that that's not the extreme example, and as such, there isn't a tremendous value to getting the guy who is going to be out in two years, three years.

My guess is that there are more people who are going to be out in a year, two, three years than there are people who are not going to get out for 40 years or are in for life. And I don't know the statistics on that. But that's just my thought on it.

PROFESSOR SCHECK: If you read what I wrote carefully, I wasn't suggesting that we not clear up the backlog, but I was suggesting if you do it in a prioritized way and I anticipated right away, Steve, based on our experience in New York that the first bureaucratic drag in this process is someone who is going to come forward and say it's harder to get the samples from the probationers and the parolees than it is to go directly to the jail cells and pick them up as we have to send somebody out to collect them.

Let me be blunt with all of you. I think you have to have all your criminal justice priorities in order and not think about budgets and what makes it easier.

I'm telling you that the person who is out on supervised release and parole who commits the next murder is the next big headline in your jurisdiction. It always is in ours. That creates the next crime control.

I don't think it's that hard frankly. Making a little bit of extra money -- if your parole people or your probation people can't find the people on the streets to bring them in to get the samples in the first place, that's telling you something, which is worth knowing about in terms of fighting crime.

So I'm just suggesting if you were to set up a consortium -- and Phil is quite right about how these have been successful in other places. If you want outsources, do a regional thing.

I'm just emphasizing target the money to where you're going to get the biggest return and it very well could be. It doesn't take long for a state to go through its correctional system and tell you how many people are two and three years from release and get their samples first.

MR. NIEZGODA: Just one comment, Barry. That funding, it's not a laboratory funding. It's a criminal justice.

So the scope of this, what can we do to the laboratories, in the big picture that's a major problem you identified. I don't think funding the laboratories is going to help that.

And either way, you still have this backlog that 50 states have been authorized to collect these samples and analyze them.

JUSTICE ABRAHAMSON: What is the backlog? Explain that to us.

MR. NIEZGODA: The backlog is the difference between the number of samples that have been collected and the number of samples that have been analyzed.

JUSTICE ABRAHAMSON: That I understand but the samples of whom?

MR. NIEZGODA: Convicted offenders, varies from state to state. All 50 states have laws. All the laws include felony sex offenses. So in some states, it's murder, robbery, burglary. In others, it's just sex offenses.

JUSTICE ABRAHAMSON: Why can't you sort those into priority of who is going to be released first? I'm trying to make sense out of both of these positions.

MR. NIEZGODA: The laboratories do prioritize by release date and type of offense right now.

JUSTICE ABRAHAMSON: So how does that affect your suggestion if they're already doing that?

PROFESSOR SCHECK: Are you -- by release date. What about the people who are already on the street who are eligible for typing?

MR. NIEZGODA: I'm saying there's a collection problem, so all these states have authority to collect. They're not collecting everything they're entitled to.

PROFESSOR SCHECK: So what you're saying is the people who are three years from release are the first people who are going to get typed, but the people who are already on the street, we're not going to type?

MR. NIEZGODA: From the laboratory's perspective --

PROFESSOR SCHECK: My point is simply this:

I can't believe that this part of the criminal justice priority is not to get the police and the labs together.

I know in my state if you say this is a conditional grant saying you want money to clear up your backlog, we will give you more money if you first prioritize collecting it from the people on the street. Then we'll go to get the money for it.

MR. ASPLEN: The point that Steve is trying to make though is who you're giving the money to isn't necessarily the person responsible for what you want them to do is the problem.

You can't give the money to the laboratory and then twist the arm of the police department. They're going to say, hey, it's not our money.

In an ideal world, it would work that way because that's --

PROFESSOR SCHECK: Aren't these states -- aren't the people convicted of violent crimes under state jurisdiction in just about every state in our country?

And the governor of a particular state would have some -- in some fashion or form the statutory and administrative authority to say, okay, go collect samples from the people on the street.

MR. ASPLEN: I guess the issue is is the length of time it would take to get that done worth that when we should be doing that anyway and to pursue that course in terms of our continued discussion, that's going to take so long for individual states to do that, to buy into that, to get the different agencies to buy into it when in terms of what we are talking about here, reducing the backlog, not what is yet to be taken, but the backlog itself, reducing that where we already know what the value and the effect of that is.

MR. CLARKE: There's a tremendous collection problem for people who are on probation, set aside that the parolees have had their samples. In theory, the parolees have had their samples collected although we know as a practical matter in many states, including California, a lot of them don't get collected for a whole variety of reasons.

But for people who are on probation who literally walk out of the courtroom, get placed on probation for time served, there is a tremendous problem collecting blood from them.

Order as a condition of probation to go to the health department. Some show up. Some don't show up.

Personally, I think the solution is to take all these latent fingerprint cards and send them all to Steve and Dwight.

The only other point I want to make is with regard to case work samples, this is a crisis situation. As an end user, I know this is common to laboratories around the country, not only are unsolved cases not being worked, but cases with suspects are not being worked.

What's being worked are the cases with prosecuting agencies like those that prosecute cases demand for trial. And that reflects the dire need of resources in terms of actual case work laboratories.

There are many of these unsolved cases that would be solved in combination with CODIS, but equally importantly are all the cases that would be solved who have suspects but simply can't be worked.

So I think funding for those purposes is certainly important.

MS. BASHINSKI: One issue in dealing with the funding, that I would urge that we somehow recommend that this funding not somehow divert an ongoing effort to get the crime labs up to the point where they can do the case work because there's an ongoing effort, a very important effort, with the DNA Improvement Act.

And I can see a ready made temptation to say we'll just take that money and do the databank. That leaves you without the case work capacity that you were trying to get to.

JUDGE REINSTEIN: Tell me where I'm not -- tomorrow I can enter an order for every one of the 25,000 people on probation in our country to come in and have a buccal swab taken and I can have it at three sites in Maricopa County. And I can have a technician do it.

I don't understand what the problem is on collecting the samples. I can understand what the problem is after that, but I don't understand what the problem is on making these people come in and give a sample. Where is it?

We make them come in to give blood. We make them come in to drop urine. This seems so much easier. All you're taking is a buccal swab. What's the problem?

MR. CLARKE: The numbers are mind boggling in larger states. There are huge numbers who are on probation.

MS. BASHINSKI: 20 percent of our sex offenders don't live where they say they do. They don't.

JUDGE REINSTEIN: They do where we are. The surveillance officer knows where they are every minute of the day.

DR. FERRARA: In Virginia we take samples upon conviction of all felons including juveniles 14 or over so you don't have to worry about the probationers.

Take the samples as soon as they are convicted and the judge or if the guy gets time served, the judge orders go someplace.

The problem is running those samples.

MR. NIEZGODA: Don in the laboratory has spent a lot of time working with the states and pointed out to me that first of all there are many states that don't even authorize collections for those on probation and parole. So there are statutes that need fixing as well to address that.

PROFESSOR SCHECK: All the more reason to get them to do it. I find it baffling that there's -- it's not baffling because I'm a Commissioner. But I'm telling you I absolutely -- I think it's out of the box thinking. It's excessively bureaucratic thinking.

If you're telling me there's a crisis to the point where you cannot get samples from parolees and probationers for violent sex offenses, if you can't collect it from the people on the street at this point in time, I don't understand how that isn't a highest priority in terms of backlog.

I must be missing something, but if you're telling me that you can't figure out a way to move the state bureaucracies forward in each individual state, I don't think you're trying hard enough.

MR. ASPLEN: I think it's a matter of what can this Commission do. What is the role of this Commission and what can this Commission recommend in terms of getting this done?

If we had Judge Reinstein throughout the country, he can call and say this is the way to do it, that would be of great benefit. But I guess it's a matter of again immediately doable. I guess it's the cost-benefit analysis of doing --

PROFESSOR SCHECK: I really do believe if you put together and states would authorize a number of responsible public officials and explain to them exactly what you're trying to do and why you were doing it, I think you can get results.

I think it's merely a process of adequately educating people to what's needed. I think everybody sees it too.

Isn't this -- what's his name, the guy that beat Dukakis, the guy that was on supervised released in Massachusetts?

Willie Horton. This is your Willie Horton issue. If people don't understand in the state that they have a Willie Horton problem, then they don't understand anything.

DNA solves it. We talk about laws all over the country where you're notifying people that there's a sex offender in your community. You're telling me you can't make it the first priority of the databankers to go out and find people who committed violent sex offenses who are on probation and parole who are the people who are about to commit a crime.

And remember, in terms of the database getting an offender to see hits, the only way you get that is you have two parts in the equation. You have to have the crime scene evidence to type. So these are the people that it makes sense to type.

And if you have to spend a little bit more money to do it first off, then that's what you do.

MR. ASPLEN: How long do you think that would take to get states to do that?

PROFESSOR SCHECK: If you really kick them in the rear end and tell them here is extra money that you can get, we want it, we take it and most crime labs and states are centralized comparatively speaking, are they not?

DR. FERRARA: No.

MR. THOMA: If I might, there's two parts and I definitely see what Woody is talking about, especially in California with regard to the mammoth project that it would be.

However, Barry has a good point too. Each county of California has a chief probation officer and that chief probation officer is hired and is kept in line supposedly by the judges in that particular county.

And if that is made a priority by the judges, if the judges want to take it upon themselves to do so, they can -- they're the ones that determine, the judges of each county in California anyway, determine what the priorities are of the probation department.

The probation department can't just go off on their own and say no, we are not going to follow that or you have literally been lying and have 20 new chief probation officers one after the other until one decides what to do.

But I agree with you, Woody, it would be a mammoth project, but I agree even more with Barry that priority is so high. I have seen so many cases.

Woody has seen a lot more cases than I have but I have seen so many where somebody reoffends in these kinds of offenses within days, within months, within weeks of being released. And parole and probation, both parole being a state agency but probation being a county by county agency, both with judicial intervention, it can be made the highest priority in California in a matter of a couple of hours.

And we can make such a recommendation and it's up to the judges to disagree with our priorities.

JUSTICE ABRAHAMSON: Jim, do you have anything to add?

MR. WOOLEY: I see a lot from -- I see it as two issues. I see one as almost a probation department funding. You're talking about laboratory funding issues.

The other one, it seems like almost a probation department funding or a parole department funding issue. That's a tremendous burden to place on those people that prioritize the sample collection that needs to be funded. You can't have an unfunded mandate like that to overwork parole officers, overwork probation officers.

If you can order 25,000 people to come in, that's great.

Where I have worked, they wouldn't all come to the party, and those probation officers would be chasing them around. And there would be all kinds of secondary and third-level work that would flow from that and arrest work and stuff.

I think that should be prioritized. I just don't know that you call that a laboratory funding issue.

So I think it is a priority. And I agree with Barry 100 percent, that I would like to see those people typed first. But I don't know that the laboratories -- that it's their issue. I think it's more of the probation/parole department issues.

PROFESSOR SCHECK: Different --

JUSTICE ABRAHAMSON: I want to hear from -- go ahead, Barry.

PROFESSOR SCHECK: If you look at the statistics that Dr. Werrett put up before about the prevalence of first offenders and you look at your statutes, my knowledge, it takes some criminology.

These numbers are not a hell of a lot different in the United States in terms of crimes committed by young people in the same age range as he put up there.

And you may very well find that the person you have on probationary status for burglary is the guy that's going out and committing the next rape or homicide.

So in terms of prophylactic effect, particularly when you're dealing even with first offenders who fall into the felony categories, all the data that Dr. Werrett showed you about the success they're having in Great Britain in terms of great criminology background indicates this is where you're going to get hits, if you type these people first.

MR. WOOLEY: As a policy, could you not, the Commission, consider endorsing the idea that we think it's a priority? For example, collection to the extent to which people doing that would need more resources and more funding. That needs to be addressed there.

If we don't feel comfortable addressing that as an issue of funding, that's a concern of the labs or the Commission. I don't see people disagreeing. I see people saying the same things, but they are different sides of the same equation.

JUSTICE ABRAHAMSON: Norm, do you have anything to add?

MR. GAHN: Going back to what Paul said before, we may have someone who is in prison for 60 years, but if you were to go back and do your unsolved cases, you may come up with a hit. So which should you do first? All of them have their own importance.

But what I would like to see is initially when I asked the first question here, I think we need more law enforcement involvement and more funding to go to those police departments or probation or whatever.

And those are the people who have to screen these cases and go through them and make the decisions and implement the priorities we set up. That's where you have to get the funding.

JUSTICE ABRAHAMSON: Jim, do you want to add anything?

Kathryn, would you like to add anything?

MS. TURMAN: I do agree most probably with Norm. In D.C., at least, 80 to 90 percent of our violent offenses are committed by people who are on some form of supervised release.

I do believe it's really important to do although just being uniquely in the District of Columbia, what really breaks down for me is how any of this could work since we have no crime lab. We don't even know who is running probation and parole anymore because it's in transition from the local to the federal.

I don't know how it would work, but I agree that all of these are important priorities.

I can see from the victim's point of view, examples like Debbie's, where there are so many people who have unsolved cases who would really benefit from knowing that on a personal level.

And also the fact that there may be a chance to keep those people in prison even longer so I don't really have that much new to add.

JUSTICE ABRAHAMSON: I kept notes and I'm trying to gather a consensus which I may be very unsuccessful at doing it but these are things I hear.

Let's see what I can do and I don't intend to change what I hear. I'm just trying to reflect so I should be corrected.

I think there's an agreement here that we are backlogged on getting data analyzed and indeed getting full data.

And that is divided into two categories if I've heard it right. One is case work or crime scene and that new cases aren't being worked quickly enough and all cases are not being worked quickly enough and indeed have administrative problems.

The case work, crime scene is a more difficult area to work with because of all the difficulties of analyzing factors at the crime scene. So that's the more complicated, more time-consuming and probably needs a forensic lab rather than a lab that would just analyze samples.

But I'm trying to get at the current analysis of new crimes and getting at old crimes is important. And we should probably and possibly address that as an issue.

We should have started out by saying this all came about because Ms. Reno when she appeared before us said what should we do and let's not wait for two years; let's get a focus now. That's what our frame of reference is here, to get something focused now.

And I didn't hear what recommendation the group might have for case work samples, what we should do to increase, improve that analysis of those issues and what should be done. I did not hear it. I heard --

PROFESSOR SCHECK: I think the point was made in terms of prioritizing crime scene samples in sexual assault cases, and if you would prioritize crime scene samples, either rape or a homicide.

JUSTICE ABRAHAMSON: From a --

PROFESSOR SCHECK: Yes, first priority.

MS. BASHINSKI: Forget that there is a trapping law now for funding training labs and we don't want to divert any money from that.

JUSTICE ABRAHAMSON: Both of those are good points. But other than that, I did not hear an attack, the way of attacking this issue.

The second issue of backlog that we have is convicted offender samples. There's a large -- and I gather the statistics are somewhere between 300 and 500,000 on behalf of the United States of samples that are there of convicted people, that these samples have not been analyzed and that they are ready to be analyzed. Am I right?

PROFESSOR SCHECK: I didn't understand. Are you saying that there are actually blood samples or buccal swabs from 300 to 500,000 people sitting there --

MR. THOMA: Yes.

JUSTICE ABRAHAMSON: By all means you should always correct what I say. I'm just repeating what I hear. That's what I heard.

And there's an agreement that it would be helpful if those were analyzed.

Now, what came through in the discussion was how should these be organized in terms of analysis for the most protection, I would think, of the public now. That should be our standard is what I heard.

And in that, there was a discussion of people that are now on the street, that is, on release either through parole or probation.

Now, some of those people will already be in the samples that have already been taken; is that right?

PROFESSOR SCHECK: That's right.

JUSTICE ABRAHAMSON: And that is a relatively easy issue. And what I heard or I think I heard is that those that are on the street assumed to be released and for whom there are samples, I think there's a consensus that those ought to be analyzed promptly. Is that generally true?

MR. THOMA: Yes.

JUSTICE ABRAHAMSON: The second issue on those that are on the street or soon to be released is if there are no samples for those people.

Now, from that, I heard that all things being equal, which they never are, that those would be the first to be analyzed.

But the difficulty is to get the samples. I think, Jim, this was your point that I'm trying to make. And that is if you could, that maybe the Commission ought to recommend that those be gotten, that that raises the cost and it raises an education issue. Is that right?

MR. WOOLEY: For people other than DNA labs?

JUSTICE ABRAHAMSON: Getting the sample itself.

MR. WOOLEY: Right.

JUSTICE ABRAHAMSON: And that raised the issue that although this comes from our lab funding work group, it's a bigger issue than just lab funding. It relates to collection and education of people who are going to do collection. Do I have that right?

MR. THOMA: Yes.

JUSTICE ABRAHAMSON: And that leaves us the convicted offender samples of those in prison, recent -- people recently imprisoned and those imprisoned for a long time.

And the question is prioritizing, an awful word but within that range. And that I think has been a summary of the discussion.

Now, the other issues that I heard are the second part of your recommendation, Paul, which deals with who does the analysis.

And I think your recommendation is outsourcing which raises questions of getting labs to compete for the contracts and it raised issues of regional labs doing it for -- which raises issues of quality control which we talked about, quality assurance.

And what we didn't talk about would be any privacy concerns on outsourcing.

Whatever I left out, I did it by carelessness but not by intent and you should fill in what I didn't.

DR. REILLY: Fundamentally with respect to the convicted felon samples, the recommendation is that that problem is much more easily resolved because of the large number of private laboratories, government laboratories, who could do that work on those kinds of pristine clinical type samples while the forensic science laboratories themselves concentrate on case work.

So an infusion of funding would help reduce the convicted felon sample.

The Commission -- the working group did not develop any privacy problems because the contract laboratories only have samples with members so if there's a privacy concern, it goes back -- it's the same one that would exist with a public forensic science laboratory which has the personal information that would be --

PROFESSOR SCHECK: That was one of the -- in listening to your recommendations, what began to occur to me is a combination of what Dr. Werrett said is if you had jurisdictions, if you were to create -- if you do it by outsourcing, designate a particular private lab to do it through a consortium system where you designate a public laboratory to build up the capacity to do it and you just dedicated with the people who do it, the key is the security.

I know that in taking Dr. Werrett's advice, what we did in New York is we very carefully separated the DNA samples, the actual blood that we take from people from the profiles, carefully limit access, make unauthorized access a felony.

And there are serious concerns about people faking samples, particularly if you're going to do buccal swabs and everything else.

Swearing in the person that actually takes the samples that it's the real sample. Those are not trivial concerns. I think.

So to the extent to which you can centralize that and have some kind of very secure view for the system of doing it, it's important because, remember, if you get a false reading in that databank, whether it be because somebody faked a sample or there's a quality assurance error, that is an unsolved crime that you're not picking up. It's a serious error.

JUSTICE ABRAHAMSON: Dwight Adams. I should have asked you before and I apologize. I tended to look that way.

DR. ADAMS: There's one other population that we haven't considered, and that's the population of federal convicted offenders.

As Kathryn mentioned, many of the individuals in Washington, D.C., are committing crimes, are committing them as they are on parole or probation. They would be considered in the category of federal convicted offenders.

Currently the legislation is inadequate to even allow for the collection of those samples. So that is something that I believe this Commission should also put forward, to enhance the legislative authority for collection of federal conviction of DNA samples.

JUSTICE ABRAHAMSON: Does anyone else have any comments?

MR. CLARKE: I was going to make one briefly. If this outsourcing model is adopted and there's funding provided for it, presumably it's not just to eliminate a backlog but it could be a successful model for up-to-date and continuous testing. If that's done successfully, then hopefully there's no need for prioritization.

Those samples will be run on a continuous and efficient basis so that prioritization becomes much less significant and the results are attainable fairly rapidly.

JUSTICE ABRAHAMSON: That raises the question of just dealing with the backlog and then next year we have a different backlog. And I think that's a very important concept.

DR. REILLY: I have two brief comments. One is a question that maybe Paul can answer.

Assuming that we use the outsourcing model in large number sampling and another are split samples, are you sending only the total sample to the private or are they whole samples, that is, do you lose custody over the entire sample?

DR. FERRARA: We are actually going to send the entire sample.

DR. REILLY: I think that becomes a nontrivial issue for those who become concerned about the integrity and the security process in laboratories that are largely unknown though perhaps extremely competent to the criminal justice community.

I can guarantee you that if there is an RFP for 10 to 15 million dollars, that there are enough brilliant molecular biologists around that you'll see very good labs springing up out of no where to aliquot this money.

The issue will be the security of the samples once they arrive in another location. That is a form of privacy issue.

My second and final point is that merely to say that the samples arrive numbered does not necessarily answer all privacy concerns.

This is a debate that has raged for the last five years. And if the number is a link between the individual who knows a lot about an individual and the lab, it is not considered to be in many quarters, not myself now, a complete reassurance that the information will be -- it is human nature that there will be two small groups of people talking to each other about common problems, only those who will raise that issue.

JUDGE ABRAHAMSON: I don't know. I don't have a feel of whether the Commission is ready to vote on just adopting the proposal of just the backlog.

And I'm wondering if it would be more helpful to NIJ and the Attorney General if we have a proposal that has some of these concerns, some of these goals that the Commission has set forth today.

Chris, do you have a sense about that?

MR. ASPLEN: A sense as to whether we are in agreement on it? I think we can -- let me ask this: I'll direct it to you, Barry, just because you're a more vocal proponent in the organization.

Do you see a way that we can incorporate a proposal that would go to the Attorney General that would do both, have a proposal to eliminate the backlog but also address the priority situation that you mentioned in the same document, i.e., we believe that this is an urgent matter, to eliminate the backlog, that this is an absolute priority?

However, it is not a priority to the exclusion of these other considerations that need to be made, that we also address the rapid concern in a rapid fashion, the prioritization of sample collection and who it comes from?

Do you perceive that we can come to an agreement on that?

PROFESSOR SCHECK: Yeah. I think that, you know, without noting the security concerns that Phil was raising. Just for your information when we take the samples, we break -- we aliquot them and we give one number to a profile and we give another number to the saved blood sample.

And it is restricted as to who has access to both numbers to hook them up which I think is one of the solutions.

And these are the kinds of things that ought to be done in the first instance. You're beginning to type on a mass basis here and, you know, for a number of different states who may not even have DNA labs.

So I think we can draw something up that lists the priorities just on the issue of paper backlog which I take it is the thrust of the proposal. I think we can draft something that reflects prioritization.

JUSTICE ABRAHAMSON: I do want to leave time for the public who have come from all around the country.

In light of what you just said and some of the noddings of heads that I see, part of my attempt to gather the consensus was to be a basis if there was some agreement of what might be a recommendation in order to consider all of these because they're not at odds.

They're different parts of the elephant that each of us -- each of you, I should say, is seeing. And perhaps we could ask a committee composed of Paul and others at the table here that represented the various proponents stated to write up a draft of a recommendation that has some of these issues set forth and what the problems are with them so whoever reads them can have a sense of the Commission's feeling.

I wonder if we can get a committee that will do that and then circulate it. Will that satisfy? Will that fit with the plans? Since you were going to be one of the drafters or scribblers, Chris --

MR. ASPLEN: Sure, I think that would be great. I would ask if we can come to an agreement at this time upon circulation of that proposal, come to an agreement subsequently before the next meeting.

What I would hate to see happen is for us to create the proposal and have to wait to approve that proposal or if we can agree that we would approve the proposal by mail, phone, fax, whatever.

This is an absolutely urgent matter and I know we all know that. I know we all feel that, especially today, but yes, I think that we can come up with that.

JUSTICE ABRAHAMSON: I don't see anybody jumping up and down saying no.

MR. THOMA: Nobody is saying no. I'd be more than happy to help Paul.

MR. GAHN: I think that's great. Have you ever talked to Mike Gam about the Wisconsin experience of contracting out to a private lab?

DR. REILLY: Yes.

MR. GAHN: There's successes.

DR. REILLY: You have to do the work up-front.

JUSTICE ABRAHAMSON: Outsourcing seems to be a major issue and that ought to be spelled out. I think all the problems should be spelled out and all the pros ought to be spelled out so that whoever gets it just has the benefit of all of this experience at the table.

MS. BASHINSKI: I would think that we don't necessarily have to say how it is done, as long as we say it's done in an economic fashion.

So a laboratory might be capable of doing it in-house cost effectively. If they are, fine. If they're not --

MR. ASPLEN: I think that's an important point. We have to make decisions in terms of how much detail do we give, that it should be done this way or the other way and how much of that do we leave to a grant funding scenario.

JUSTICE ABRAHAMSON: You can express the concerns.

PROFESSOR SCHECK: And state priorities.

JUSTICE ABRAHAMSON: And state priorities. I think we have a general agreement on the direction to go and that we'll have a smaller committee of the group but then it will be the committee as a whole that will look at this.

And we will work it through on e-mail, telephone conferences, and whatever other techniques to the extent that work groups are going to be meeting.

It can be handled. Agreed. Thank you very much. I think we accomplished a great deal and we are still running late.

Questions from the Public and Press

But we now have questions and comments from the public and the press so if we'd all turn around and if you would state your name.

MS. KOSTNER: My name is Rhoda Kostner. I'm executive director of Governor Engler's Commission on Genetic Privacy and Progress.

Our issues, our state issues, are involving DNA and those issues that we are grappling with include sample collections, storage and use, privacy and confidentiality, discrimination based on genetic testing, specifically on health insurance and employment and informed consent.

And obviously we have run into problems and we seek assistance from many quarters.

I want to thank Lisa Forman for suggesting I attend today's meeting because I did speak with her about an overwhelming problem last week, and I want to thank members of the Commission who so kindly provided consultation over lunch and will continue to do so.

And finally, I want to thank Madam Chair for her thoughts on what in fact is critical to the success of a Commission.

I go back to Michigan really encouraged because we are dealing with these issues on a different level, but it's nice to be here sharing the problems with other people. Thank you.

MR. WILLING: Richard Willing, USA Today. Thank you for letting me sit in. A post conviction question, if I could.

The hypothetical: I'm a convict seeking to exculpate myself, not a convict who is required at this point to have given his DNA sample.

By giving my sample in the course of my exculpation, do I expose myself to the full potential penalties of the database? Is that something that you would -- I'll hang up and listen for your answer.

JUSTICE ABRAHAMSON: This is part of the working draft.

PROFESSOR BERGER: Certainly in the working draft that hasn't been approved, and certainly if we look at the protocols for the defense and the prosecutor, people in the working group felt that one of the things that was a tradeoff that had to be made was that the person who was seeking to get testing had to agree that once that was done, that would be open testing. It was also open to anyone and they would be available for entry into any databank.

And the consequences could be severe. A person could be revealed as a suspect in a totally different -- a perpetrator of a totally different crime and all the other consequences that would follow.

Certainly if the person was now shown to be guilty of the crime for which he had been convicted for the DNA testing and was simultaneously trying to get probation or a pardon or whatnot, certainly the person would forfeit those kinds of possibilities.

MS. SWIENTON: Angela Swienton. I'm now a contractor with NIJ, but previous to that, I was a DNA technician in a private laboratory for seven years.

And in sitting in the back and listening to your comments, I just have one thing that I wanted to make sure got brought up, and that is that we have been talking a lot about funding to eliminate the backlog for CODIS. And I think that's extremely important.

The other issue that was brought up was the case work and we have to remember as a case worker, a lot of laboratories who started implementing 24-hour operations, people, you know, staffing trying to staff up or implement new technologies.

But something that was brought up that I think we need to remember is that in order to get that case work done, you need trained people to do it. And when I went through my master's degree and got out in 1992, there were four people in my classes.

Now the schools are turning people away because lots and lots of people are trying to get in there and get trained and yet with an ASCOT accreditation, laboratories can only hire people who are already experienced. And somewhere there's a break in the system.

We need to, I think, put some more money into training people so that we can get people who are qualified and are trained and are at the level where we want them to be in the laboratories so that we can make a dent in the backlog.

JUSTICE ABRAHAMSON: Thank you.

I asked Dr. Werrett if he had any comments on our discussion of the backlog. I said he didn't have to do it.

DR. WERRETT: I listened with interest because that kind of debate played quite heavily in the Forensic Science Service over the years.

I would make a bit of a comment which isn't meant to be rude, but there's lots of reasons for not doing things. And we do have to get into a can-do kind of attitude, I think, to go forward.

There's always many reasons for not doing things and few for doing them sometimes even though your overriding goal is to get this thing done. And we forgot that ourselves for a long time.

And when we decided we were going to do something, someone would say what about the collection of this and the coding of that and so sometimes you have to just do it.

But to split things up, we have a backlog too of 100,000 samples of suspects, and I confidently predict we'll get rid of that this year.

I made a big mistake when we first started doing this, and that was to actually count on new technology coming into place when I thought it was going to come into place. It never does.

Researchers, like myself, are notoriously optimistic about when they can deliver things and they always let you down. And at the end of the year, you're always short of what you thought you were going to do.

So we now run into a situation where we plan on what we know technology terms we can do now. And anything that comes in as new technology like automation, all the rest of it is treated as a bonus.

And that means we seek the target, not just fail the target. So you set your target on that.

That in itself appears quite expensive because it means that you're planning on basically today's almost old technology, but that's the way we have done it with CJ samples.

I think it was Jan who probably said about case stains, isn't there a way of looking at categories of case stains and treating them rather like buccal scrapes.

I totally agree with that and that's exactly what we do. And we bring people in, fresh graduates, get them up and running on buccal scrapes.

When they're good on those, we continually bleed them through to the case stains coming in from the scenes. And we are very rigorous with the police in terms of the presentation of those samples. They have to be in a common format so they can be done on a routine basis.

Case stains themselves, there's no easy group of those. You just have to do them in pure forensic terms.

But the difference as we are moving between buccal scrapes and scene stains should be very little in actual fact because of the way they should be presented. And we reckon by the end of this year, we'll have like a 14-day turnaround time on anything that has a stain label to it.

I would take slight issue with Dr. Reilly on the 300,000 being trivial. In a clinical circumstance, I'd totally agree with you that's a trivial number.

I think the problem is in a forensic circumstance, there's just a little more topping and tailing of what has to be done and that gets in the way of doing it. But it shouldn't be onerous to do it fairly quickly, especially with the money put behind it.

So I don't think there's any magic answer to this. That's just my observation. Thank you.

JUSTICE ABRAHAMSON: Anyone else?

Hearing none, I'll close the meeting three minutes early.

So we did catch up but I do owe an apology to Dr. Berger for having kept her.

MR. ASPLEN: Please leave your September schedules and please let me know specifically if you're going to be involved in the writing of the proposal.

**END OF MEETING**