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[PP. 4501-5000]

STATE OF SOUTH CAROLINA
In the Supreme Court

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APPEAL FROM DORCHESTER COUNTY

Court of Common Pleas

(Capital PCR: 2005-CP-18-1368)

The Honorable Doyet A. Early, III, Circuit Court Judge **S.C. Supreme Court**

Appellate Case No. 2014-000387

Kenneth Simmons, #5066,

Respondent/Petitioner,

v.

State of South Carolina,

Petitioner/Respondent.

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STATE’S EXHIBIT #18a (CD 1 OF 2) [VIDEO DEPOSITION]

STATE’S EXHIBIT #18b (CD 2 OF 2) [VIDEO DEPOSITION]

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

=====

File #	0098JT0055	Re: STATE OF SC/APPT CASE
Client Name:	SIMMONS, KENNETH	DEATH PENALTY
Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

ATTORNEY'S FEE FOR SERVICES AS
FOLLOWS: VISIT AND CONFER WITH
CLIENT.

B	08/13/98	JT	ATF	1.00	50.00	50.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: MEETING WITH INVESTIGATOR, DENVA SIMPSON, REGARDING FOLLOW UP ON WITNESSES AND OTHER THINGS TO DO, MAPS, PHOTOS, ETC.							
B	08/13/98	JT	ATF	2.50	50.00	125.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: RESEARCH AND READING.							
B	08/15/98	JT	ATF	4.50	50.00	225.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW DISCOVERY MATERIALS.							
B	08/17/98	JT	ATF	1.50	50.00	75.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: MEETING WITH INVESTIGATOR SIMPSON AND REVIEW CLIENT'S WITNESS LIST.							
B	08/18/98	JT	ATF	6.00	50.00	300.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW AND PREPARATION.							
B	08/19/98	JT	ATF	8.00	50.00	400.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW AND PREPARATION.							
B	08/21/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW LETTER OF WALTER BAILEY'S TO JUDGE PEEPLES.							
B	08/28/98	JT	ATF	.25	50.00	12.50	Billed

ROM: 01/01/93
HRU: 01/22/07URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.IME: 11:50:46
ile type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

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ile # 0098JT0055

Re: STATE OF SC/APPT CASE
DEATH PENALTY

lient Name: SIMMONS, KENNETH

Fee type: (NORMAL BILLING FILE) Format 5

Resp Tkpr: JT AT Last billed 04/07/00

ALL ENTRIES BEING BILLED

ATTORNEY'S FEE FOR SERVICES AS
FOLLOWS: LETTER TO SHERIFF,
RAY NASH.

B	09/28/98	JT	ATF	3.00	50.00	150.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION.							
B	09/28/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO WALTER BAILEY ENCLOSING ORDER FOR EVALUATION OF COMPETENCY							
B	09/29/98	JT	ATF	1.50	50.00	75.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: CONTACTED JIM BELL, CARLOS TORRES, AUDIO TAPE EXPERT, REQUESTED DNA MATERIAL FROM SOLICITOR, SUPPLEMENTAL REQUESTS FOR EXPENSES.							
B	09/29/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO CLERK OF COURT SUBMITTING VOUCHER FOR SIGNATURE.							
B	10/04/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW BILL SUBMITTED BY DR. FOXWORTH FOR SERVICES.							
B	10/09/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO INDIGENT DEFENSE SUBMITTING VOUCHER.							
B	10/13/98	JT	ATF	1.00	50.00	50.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION AND LETTER TO JUDGE PEEPLES ENCLOSING AN AUTHORIZATION AND ORDER FOR FUNDS.							
B	10/13/98	JT	ATF	.25	50.00	12.50	Billed

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

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Matter: ALL

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Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

ATTORNEY'S FEE FOR SERVICES AS
FOLLOWS: LETTER TO JUDGE
PEEPLS.

B	10/27/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONFERENCE WITH RANDY WAID, EXPERT WITNESS.							
B	10/27/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONFERENCE WITH JOHN BLUME, MENTAL RETARDATION EXPERT.							
B	10/27/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONFERENCE WITH JIM BELL REGARDING JURY QUESTIONNAIRE AND STATE HOSPITAL EVALUATION.							
B	10/27/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONFERENCE WITH JEFF YUNGMAN, EXPERT WITNESS.							
B	10/29/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW LETTER FROM WALTER BAILEY.							
B	11/06/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO WALTER BAILEY SUBMITTING JURY QUESTIONNAIRE.							
B	11/09/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO DONNA BRIDGES AT INDIGENT DEFENSE OFFICE ENCLOSING ORDER OF							

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

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Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

APPOINTMENT.

B	11/09/98	JT	ATF	1.00	50.00	50.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION AND LETTER TO WALTER BAILEY ENCLOSING SUPPLEMENTAL MOTION FOR INSPECTION AND PRODUCTION.							
B	11/11/98	JT	ATF	2.00	50.00	100.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: MEETING WITH INVESTIGATOR, PAUL BUCETTI.							
B	11/11/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO JIM BELL REQUESTING SIGNATURE FOR LETTER SENT TO JUDGE PEEPLES.							
B	11/16/98	JT	ATF	1.50	50.00	75.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW AND NOTES.							
B	11/18/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONFERENCE WITH CARLOS TORRES, STATE HOSPITAL SOCIAL WORKER.							
B	11/18/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH CARLOS TORRES AND DR. VIDIC AT STATE HOSPITAL.							
B	11/19/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH DR. VIDIC.							
B	11/21/98	JT	ATF	3.50	50.00	175.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION FOR AND							

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

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File #	0098JT0055	Re: STATE OF SC/APPT CASE
Client Name:	SIMMONS, KENNETH	DEATH PENALTY
Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

REVIEW.

B	11/22/98	JT	ATF	3.00	50.00	150.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION AND REVIEW.							
B	11/23/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW MATERIAL FROM DR. VIDIC.							
B	11/23/98	JT	ATF	8.50	50.00	425.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: EVALUATION AT STATE HOSPITAL.							
B	11/23/98	JT	ATF	8.00	50.00	400.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: COMPETENCY AND CRIMINAL RESPONSIBILITY EVALUATION AT STATE HOSPITAL.							
B	11/24/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH DR. SAYLOR REGARDING FOLLOW UP TESTING.							
B	11/24/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER JIM BELL REQUESTING SIGNATURE ON PETITON.							
B	11/24/98	JT	ATF	1.00	50.00	50.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION AND LETTER ENCLOSING PETITION TO JUDGE PEEPLES.							
B	11/24/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER CONFIRMING TELEPHONE CONVERSATIONS TO DR.							

FROM: 01/01/93
THRU: 01/22/07URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

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File # 0098JT0055 Re: STATE OF SC/APPT CASE
Client Name: SIMMONS, KENNETH DEATH PENALTY
Fee type: (NORMAL BILLING FILE) Format 5
Resp Tkpr: JT AT Last billed 04/07/00 ALL ENTRIES BEING BILLED

VIDIC, DR. SAYLOR AND DR.
BEHRMAN.

B	11/26/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH DR. VIDIC REGARDING FOLLOW UP TESTING.							
B	12/07/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH DR. OSTROWSKI, DNA EXPERT.							
B	12/08/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO WALTER BAILEY.							
B	12/09/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: FAX TO SC DEPARTMENT OF MENTAL HEALTH CONFIRMING APPOINTMENT FOR TESTING.							
B	12/10/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION AND LETTER TO WALTER BAILEY ENCLOSING COPIES OF MOTIONS.							
B	12/15/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Meeting with paralegal regarding document and evidence needs							
B	12/15/98	JT	ATF	1.00	50.00	50.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Meeting with Denva Simpson regarding investigative needs.							
B	12/15/98	JT	ATF	.50	50.00	25.00	Billed

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

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File #	0098JT0055	Re: STATE OF SC/APPT CASE
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Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

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ATTORNEY'S FEE FOR SERVICES AS
FOLLOWS: Correspondence to Dr.
Saylor and Dr Foxworth
forwarding testing
transcripts.

B	12/16/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW LETTER FROM SC DEPARTMENT OF MENTAL HEALTH TO SCHEDULE TESTING.							
B	12/17/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO DR. SAYLOR ENCLOSING MATERIALS FOR REVIEW.							
B	12/17/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO JIM BELL ENCLOSING MATERIALS FOR REVIEW.							
B	12/17/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO DR. MORTON ENCLOSING MATERIALS FOR REVEIW.							
B	12/17/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO DR. FOXWORTH ENCLOSING MATERIALS FOR REVIEW.							
B	12/17/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW LETTER FROM WALTER BAILEY.							
B	12/17/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: FAX TO SC DEPARTMENT OF MENTAL HEALTH RESCHEDULING							

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

4508 PAGE 18

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

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File #	0098JT0055	Re: STATE OF SC/APPT CASE
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Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

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TESTING.

B	12/21/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW FAX FROM WALTER BAILEY.							
B	12/22/98	JT	ATF	1.00	50.00	50.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Telephone conference with Dr. Ostrowski regarding DNA materials							
B	12/22/98	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION OF LETTER TO JUDGE PEEPLES.							
B	12/22/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: LETTER TO WALTER BAILEY.							
B	12/29/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW LETTER FROM JUDGE PEEPLES TO WALTER BAILEY.							
B	12/30/98	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW FAX FROM WALTER BAILEY.							
B	01/02/99	JT	ATF	3.00	50.00	150.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Prepare trial motions							
B	01/06/99	JT	ATF	2.00	50.00	100.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: MEETING WITH FORENSIC EXPERT, DON GIRNDT.							
B	01/06/99	JT	ATF	1.50	50.00	75.00	Billed

FROM: 01/01/93 URICCHIO, HOWE, KRELL, JACOBSON,
THRU: 01/22/07 TOPOREK & THEOS, P.A.

TIME: 11:50:46 STATEMENT REVIEWS (PRE-BILLS) BY
File type: ALL Matter: ALL

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Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

ATTORNEY'S FEE FOR SERVICES AS
FOLLOWS: REVIEW OF RECENT
DISCOVERY MATERIAL.

B	01/07/99	JT	ATF	5.00	50.00	250.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW MEDICAL/PSYCHOLOGICAL DATA.							
B	01/07/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH PAUL BUCETTI REGARDING INVESTIGATION.							
B	01/08/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW STATE HOSPITAL RECORDS AND FILE.							
B	01/08/99	JT	ATF	8.00	50.00	400.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: COMPETENCY AND CRIMINAL RESPONSIBILITY EVALUATION AT STATE HOSPITAL.							
B	01/09/99	JT	ATF	8.50	50.00	425.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW DISCOVERY.							
B	01/10/99	JT	ATF	10.00	50.00	500.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW DISCOVERY.							
B	01/11/99	JT	ATF	.75	50.00	37.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONFERENCES WITH JIM BELL. CONFERENCE CALL WILL JUDGE PEEPLES AND WALTER BAILEY.							
B	01/11/99	JT	ATF	2.50	50.00	125.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW DISCOVERY.							
B	01/11/99	JT	ATF	.25	50.00	12.50	Billed

FROM: 01/01/93
THRU: 01/22/07URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

=====

File # 0098JT0055 Re: STATE OF SC/APPT CASE
Client Name: SIMMONS, KENNETH DEATH PENALTY
Fee type: (NORMAL BILLING FILE) Format 5
Resp Tkpr: JT AT Last billed 04/07/00 ALL ENTRIES BEING BILLED

ATTORNEY'S FEE FOR SERVICES AS
FOLLOWS: TELEPHONE
CONVERSATION WITH
INVESTIGATOR, PAUL BUCETTI.

B	01/11/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH DR. SAYLOR.							
B	01/11/99	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH JEFF YUNGMAN.							
B	01/11/99	JT	ATF	5.00	50.00	250.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW DISCOVERY NOTEBOOKS.							
B	01/12/99	JT	ATF	6.00	50.00	300.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION AND REVIEW OF SUPPLEMENT MOTIONS.							
B	01/12/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH WALTER BAILEY, SOLICITOR.							
B	01/12/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH CO-COUNSEL, JIM BELL.							
B	01/12/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH DR. MORTON.							
B	01/12/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS							

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

=====

File #	0098JT0055	Re: STATE OF SC/APPT CASE
Client Name:	SIMMONS, KENNETH	DEATH PENALTY
Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

FOLLOWS: TELEPHONE
CONVERSATION WITH DON GIRNDT.

B	01/12/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH RON OSTROWSKI, DNA EXPERT.							
B	01/12/99	JT	ATF	3.00	50.00	150.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW AND ORGANIZE LATEST DISCOVERY MATERIAL.							
B	01/12/99	JT	ATF	5.00	50.00	250.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PREPARATION FOR MOTION HEARING.							
B	01/13/99	JT	ATF	10.00	50.00	500.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW DISCOVERY MATERIAL, PREPARATION FOR HEARING AND ORGANIZE FILE.							
B	01/13/99	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: TELEPHONE CONVERSATION WITH DR. FOXWORTH REGARDING FOLLOW UP TESTING.							
B	01/14/99	JT	ATF	3.00	50.00	150.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Prepare trial motions							
B	01/14/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Correspondence to Clerk of Court to file motions							
B	01/14/99	JT	ATF	4.50	75.00	337.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Motion Hearings							

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

4512 PAGE 22

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

=====

File #	0098JT0055	Re: STATE OF SC/APPT CASE
Client Name:	SIMMONS, KENNETH	DEATH PENALTY
Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

=====

B	01/14/99	JT	ATF	3.00	50.00	150.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Review mental retardation materials							
B	01/14/99	JT	ATF	6.00	50.00	300.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: REVIEW MENTAL RETARDATION MATERIALS.							
B	01/14/99	JT	ATF		150.00		Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS:							
B	01/14/99	JT	ATF	2.00	75.00	150.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: PRE-TRIAL CONFERENCE AND MOTIONS IN ST. GEORGE.							
B	01/15/99	JT	ATF	1.50	50.00	75.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Status conference with paralegal							
B	01/15/99	JT	ATF	.50	50.00	25.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Correspondence							
B	01/15/99	JT	ATF	2.00	50.00	100.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Review discovery and organize file.							
B	01/15/99	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Telephone conference with Judge's clerk, Robbie Robbins.							
B	01/16/99	JT	ATF	3.50	50.00	175.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Review discovery							
B	01/16/99	JT	ATF	2.00	50.00	100.00	Billed

FROM: 01/01/93
THRU: 01/22/07

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.

TIME: 11:50:46
File type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

=====

File #	0098JT0055	Re: STATE OF SC/APPT CASE
Client Name:	SIMMONS, KENNETH	DEATH PENALTY
Fee type:	(NORMAL BILLING FILE) Format 5	
Resp Tkpr:	JT AT Last billed 04/07/00	ALL ENTRIES BEING BILLED

ATTORNEY'S FEE FOR SERVICES AS
FOLLOWS: Review mental
retardation materials.

B	01/17/99 JT ATF	4.00	50.00	200.00	Billed
	ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Strategy and opening and closing statements preparation.				
B	01/18/99 JT ATF	6.00	50.00	300.00	Billed
	ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Review discovery				
B	01/19/99 JT ATF	3.00	50.00	150.00	Billed
	ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Status conference with paralegal. Prepare juror questionnaire in final form.				
B	01/19/99 JT ATF	.25	50.00	12.50	Billed
	ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Telephone conference with Judge Peeples.				
B	01/19/99 JT ATF	.25	50.00	12.50	Billed
	ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Telephone conference with Lindsey Stewart, Department of Disabilities and Special Needs				
B	01/19/99 JT ATF	.50	50.00	25.00	Billed
	ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Review report and evaluation of State Hospital				
B	01/19/99 JT ATF	.25	50.00	12.50	Billed
	ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Telephone conference with Don Girndt.				
B	01/19/99 JT ATF	.25	50.00	12.50	Billed
	ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Review fax				

ROM: 01/01/93
HRU: 01/22/07URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.IME: 11:50:46
ile type: ALL

STATEMENT REVIEWS (PRE-BILLS)

BY
Matter: ALL

=====

ile # 0098JT0055

Re: STATE OF SC/APPT CASE
DEATH PENALTY

lient Name: SIMMONS, KENNETH

Fee type: (NORMAL BILLING FILE) Format 5

Resp Tkpr: JT AT Last billed 04/07/00

ALL ENTRIES BEING BILLED

transmittal from Solicitor
Bailey regarding Department of
Disabilities and Special
Needs

B	01/19/99	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Telephone conference with Dr. Randy Waid, mental retardation expert.							
B	01/19/99	JT	ATF	.75	50.00	37.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Telephone conference with John ~~Pl~~ ume regarding mental retardation experts.							
B	01/19/99	JT	ATF	5.00	50.00	250.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Review transcripts from Joe Frank Gardner death penalty trial							
B	01/20/99	JT	ATF	3.00	50.00	150.00	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Status conference with paralegal. Telephone conferences and correspondence with Clerk of Court and Walter Bailey regarding juror questionnaire.							
B	01/20/99	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Telephone conference with Solicitor Bailey							
B	01/20/99	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS FOLLOWS: Second telephone conference with Solicitor Bailey							
B	01/20/99	JT	ATF	.25	50.00	12.50	Billed
ATTORNEY'S FEE FOR SERVICES AS							

STATE OF SOUTH CAROLINA

COUNTY OF DORCHESTER

IN THE COURT OF GENERAL SESSIONS
 FIRST JUDICIAL CIRCUIT
 WARRANT NO. F-719270, F-719273,
 F-719097, F-719272, F-719271,
 F-719274

INDICTMENTS NO. 98-GS-18-75,
 -76, -77, -78, -79

STATE OF SOUTH CAROLINA,

versus

KENNETH SIMMONS,

Defendant.

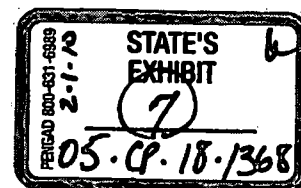
SUPPLEMENTAL MOTION FOR
 INSPECTION, OR IN THE
 ALTERNATIVE, MOTION TO
 PRODUCE

TO: WALTER M. BAILEY, JR., SOLICITOR, FIRST JUDICIAL CIRCUIT

NOW COMES the Defendant, by and through his undersigned counsel, and moves this Court for an Order authorizing the Defendant and/or his attorneys to inspect and scientifically test, or in the alternative, to have the prosecution produce and make available for such inspection and scientific testing, the following:

All notes, memoranda or recordings pertaining to the preparation, execution, results and outcome of any scientific/DNA experiments conducted by SLED or consulting laboratories, such as LifeCodes, on behalf of the State regarding evidence and/or substances, in particular:

1. Copy of the DNA case file, including autoradiograms;
2. Statement regarding the type of proficiency testing program SLED participates in and its performance results;
3. Copy of the database used in frequency calculations, preferably on computer disk;
4. Copy of any report by outside experts who have analyzed the database, including LifeCodes;



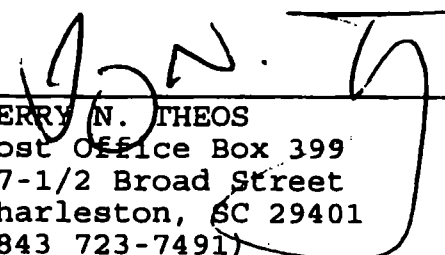
5. Copy of the match window validation report;
6. Copy of the DNA protocol used in this case;
7. Copy of the Quality Assurance/Quality Control manual used in this case;
8. Copy of the Chain of Custody with regard to the DNA evidence (for SLED and for LifeCodes);
9. Curriculum Vitae of the individual(s) who worked this case;
10. Underlying data (and statements if not previously provided) of SLED's open and blind proficiency tests;
11. Copy of autorads, sizing sheets, and laboratory notes, as well as final reports generated by SLED and/or LifeCodes for these RFLP proficiency tests;
12. Copy of any results and any keys to those results prepared by the testing agencies (LifeCodes) and reported back to SLED via letter, booklet or report
13. A statement of the ID number assigned to SLED which would apply in this case

The granting of this Supplemental Motion is essential in that said inspection is necessary in order to adequately prepare for trial regarding any substances alleged to have been confiscated.

WHEREFORE, Defendant prays and demands that he and/or his attorneys be allowed to inspect the aforementioned substances, evidence and documents, or in the alternative, have the prosecution produce and make available the substances, evidence and documents to the Defendant and his attorneys.

4517

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.


JERRY N. THEOS
Post Office Box 399
17-1/2 Broad Street
Charleston, SC 29401
(843 723-7491)

ATTORNEYS FOR DEFENDANT

Charleston, South Carolina.

Aug. 28, 1998.

URICCHIO, HOWE, KRELL, JACOBSON, TOPOREK & THEOS, P.A.

ATTORNEYS AT LAW
17 1/2 BROAD STREET
CHARLESTON, SC 29401

4518

PAUL N. URICCHIO, JR.
ARTHUR G. HOWE
BARRY KRELL
CARL H. JACOBSON
ALAN D. TOPOREK
JERRY N. THEOS
EMILY G. JOHNSTON
GREGORY D. KEITH

November 9, 1998

MAILING ADDRESS:
P.O. BOX 399
CHAS., SC 29402-0399

TELEPHONES:
(843) 723-7491
1-800-899-1683
FAX (843) 577-4179

Walter M. Bailey, Jr., Solicitor
First Judicial Circuit
134 East Richardson Avenue
Summerville, South Carolina 29483

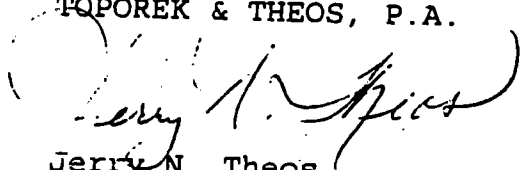
RE: State of South Carolina v. Kenneth Simmons

Dear Walter:

On August 28, 1998, I served a Supplemental Motion for Inspection or Production upon you for primarily DNA and SLED documentation relating to this case. Please forward the materials requested upon receipt of this letter as those are needed in order to properly analyze the DNA tests conducted and in order to provide effective representation for Ms. Simmons.

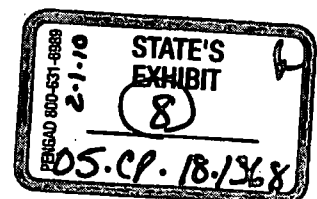
Sincerely,

URICCHIO, HOWE, KRELL, JACOBSON,
TOPOREK & THEOS, P.A.


Jerry N. Theos

JNT/klt

cc: James A. Bell, Esquire



OFFICE OF SOLICITOR
First Judicial Circuit

4519

140 North Main Street
Suite 102
Summerville, SC 29483
(843) 871-2640
FAX (843) 871-2643
PTI (843) 873-7842

Courthouse, Amelia Street
Post Office Box 1525
Orangeburg, SC 29116
(803) 533-6252
FAX (803) 533-6004
PTI (803) 533-6137

WALTER BAILEY

Solicitor
16 November 1998

HAND-DELIVERED AT THE SOLICITOR'S OFFICE

*Picked up
11/17/98 by
Debra Simpson*

Jerry N. Theos, Esquire
Uricchio, Howe, Krell, Jacobson
Toporek & Theos, P.A.
17 1/2 Broad Street
Post Office Box 399
Charleston, South Carolina, 29402-0399

IN RE: STATE OF SOUTH CAROLINA vs. KENNETH SIMMONS

Dear Jerry:

Please find enclosed herewith the documents requested with regard to your Supplemental Motion for Inspection for DNA together with the original autoradiograms in this case.

As you know, this case is scheduled to go to trial on February 22, 1999.

Please give me a call if you have any questions.

With kindest regards, I remain,

Sincerely,

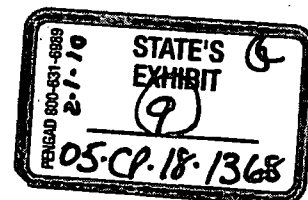
[Signature]
Walter M. Bailey, Jr.

WMBjr:jgh

Enclosures: As stated (365 pages and 11 original autoradiograms)

cc: James Bell, Esquire

COPY



The State of South Carolina

4520

OFFICE OF SOLICITOR
First Judicial Circuit

140 North Main Street
Suite 102
Summerville, SC 29483
(843) 871-2640
FAX (843) 871-2643
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PTI (803) 533-6137

WALTER BAILEY

Solicitor
13 January 1999

Jerry N. Theos, Esquire
Uricchio, Howe, Krell, Jacobson
Toporek & Theos, P.A.
17 1/2 Broad Street
Post Office Box 399
Charleston, South Carolina, 29402-0399

IN RE: STATE OF SOUTH CAROLINA vs. KENNETH SIMMONS

Dear Jerry:

Please find enclosed herewith copies of the envelopes which contained the victim and defendant's blood as well as the labels for the oral and vaginal swabs taken at the autopsy.

Lauren Crane, formerly Galbreath, of Lifecodes, will testify that she identified sperm from the oral swabs.

With kindest regards, I remain,

Sincerely,



Walter M. Bailey, Jr.

WMBjr:jgh

Enclosures: As stated (5 pages)

cc: James Bell, Esquire



The State of South Carolina

4521

OFFICE OF SOLICITOR
First Judicial Circuit

140 North Main Street
Suite 102
Summerville, SC 29483
(843) 871-2640
FAX (843) 871-2643
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(803) 533-6252
FAX (803) 533-6004
PTI (803) 533-6137

WALTER BAILEY
Solicitor
23 November 1998

Jerry N. Theos, Esquire
Uricchio, Howe, Krell, Jacobson
Toporek & Theos, P.A.
17 1/2 Broad Street
Post Office Box 399
Charleston, South Carolina, 29402-0399

James A. Bell, Esquire
Post Office Box 905
St. George, South Carolina 29477

IN RE: STATE OF SOUTH CAROLINA vs. KENNETH SIMMONS

Dear Gentlemen:

Please find enclosed herewith various Town of Summerville Police Department Incident Reports and Booking Reports from 1991 involving a burglary in which your client was the defendant together with a rap sheet on the victim.

Also, Jerry, this will acknowledge that your investigator, Denva Simpson, picked up the materials (365 pages and 11 autoradiograms) with regard to your DNA Discovery Motion from my office on Tuesday, November 17, 1998.

Please give me a call if you have any questions.

With kindest regards, I remain,

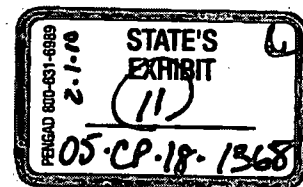
Sincerely,



Walter M. Bailey, Jr.

WMBjr:jgh

Enclosures: As stated (11 pages)



PROFESSIONAL CONSULTING SERVICES
Suite A
2120 McLean Road
Charlotte, NC 28213

TO: Mr. Jerry Theos
FROM: Ronald S. Ostrowski, Ph.D.
DATE: February 10, 1999
RE: SC v. K. Simmons



This report is being written as per our telephone conversation.

These results were contained in the LifeCodes Lab Report:

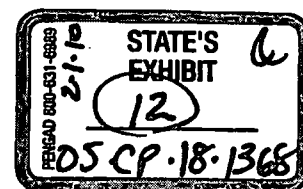
6389	Boyd	DQ α 2, 4.2/4.3
6855	Simmons	1.1, 1.2
6384	Vag. Swab	
	male	1.1, 2 * 4.2/4.3
	female	2, 4.2/4.3

* indicates that 1.2 allele may be present

The vaginal swab sample (male fraction) indicates a "mixed sample." There are two possible explanations:

- The sample contains DNA from Simmons and Boyd.
- The sample contains DNA from more than one sperm donor and possibly Boyd.

The statement found at the bottom of the page (* indicates that 1.2 allele may be present) is informative relative to an inherent weakness of the dot blot test. The key words are "may be present". If the 1.2 allele is present, then Mr. Simmons cannot be excluded. If the 1.2 allele is not present then Mr. Simmons is excluded as a possible sperm donor. This lack of certainty is due to one of the short comings of the dot blot (DQ α) system. There is no "direct dot result" for the 1.2 allele. Furthermore, when both 1.1 and 4 alleles are present in a sample, either the presence or absence of the 1.2 allele cannot be stated with certainty.



To: J. THEOS
From: R. OSTROWSKI

All genes are ^{all} alleles (i.e. A1, B1, etc.)

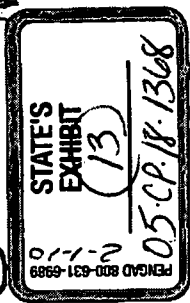
Sample #s	DQA	LDLR	CYPB	HBGG	D7	GG	
56382	2, 4.2/4.3	AB	AB	AC	AA	BB	Boyd reg. swab
(?) Simons 84	4.2/4.3 (1.2) 1.1, 2	AB	AB	AC	A(B)	(A)B(C)	() ← all darker than S ^{very dark}
84 ♀	2, 4.2/4.3	AB	AB	AC	AA	BB	
(86)	4.2/4.3 (1.2) 1.1, 2	AB	AB	AC	A(B)	(A)B(C)	() ← approx of same intensity as S
86 ♀	2, 4.2/4.3	AB	AB	AC	AA	BB	very swab
89	2, 4.2/4.3	AB	AB	AC	AA	BB	Boyd standard
(Simons) 555	Allele symbols 1.1, 1.2	BB	AB	AC	AB	AC	Simmons

sample Simons vagina
ed sub included

Airport Analogy

⊗ see LifeCodes / test protocol

See E. H. (1.2)
~~report claims~~
~~excluded (1.2, 1.3)~~
~~Neither allele~~
~~I don't agree!~~



Can you say with 100% certainty that the 1.2 allele is in the male fraction? (4 hides 1.2, they assume 1.2 is present)

Extra bands (STRs) on 555 as well as

If it's absent - Simmons excluded
- no matter how many other he matches - he must therefore be excluded
of genes observed - one mismatch - exclusion

Ray Film :

STR (short tandem repeat)

appears to match stuff in veginel

les dlele — this bar

his dlele — light version in les (bars)

bands

State claims

artifacts, or simon

* We see extra bands in les lane, which they claim are his
but, we also see extra bands in his lane, (artifacts?)

↗
state claims

CONFIDENTIAL-SOCIAL WORK/ATTORNEY DRAFT WORK PRODUCT

SOCIAL HISTORY EVALUATION

by Jeff Yungman, MSW, LISW
License No. 772

February 8, 1999

INTRODUCTION

The reason for this evaluation is as follows: Kenneth Simmons, a 37 year old African American male incarcerated at Dorchester County Detention Center was referred by his attorney, Jerry Theos, for a social history evaluation. The purpose of the evaluation is to:

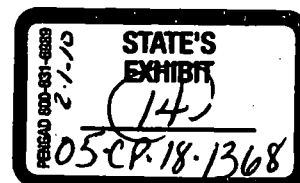
- a) Determine if there is evidence that Mr. Simmons' social and emotional functioning as a child and an adult was affected by any childhood trauma.
- b) Determine if there is evidence that Mr. Simmons has a significant history of mental illness or substance abuse.
- c) Determine if there is evidence that Mr. Simmons' social history, social environment, and social functioning affected his behavior.

The procedure for this social history evaluation involved:

- a) A complete review of all available records pertaining to Mr. Simmons' social history including:

-copies of Mr. Simmons' school records from the Dorchester County School District

-copies of statements Mr. Simmons' made to SLED on 12-5-97 and 12-9-97



b) Interviews with the following people:

- Kenneth Simmons-client (12-4-98/2-xx-99)
- Gene Simmons-brother (1-6-99)
- Valerie Simmons-wife (1-18-99/2-6-99)
- Robyn Schmieding-high school acquaintance (1-30-99)
- Doris Russell-Director Palmetto House (2-2-99)
- Barbara Jones-former girlfriend (2-2-99)
- Sandy Franklin-volunteer Palmetto House (2-2-99)
- Juanita Grier-sister (2-3-99)
- Steven Marie-high school classmate (2-4-99)
- Eartha Smooth-sister (2-4-99)
- Margaret Odom-psychologist Dorchester Schools (2-4-99)
- Brenda Washington-sister (2-8-99)
- Annette Geddis-sister (2-8-99)
- Stan Yarborough-high school coach (2-9-99)

c) Development of a chronology of Mr. Simmons' key life history events based on the records and interviews; all information in the chronology is based on at least two independent sources of information, except where the information is designated.

d) Interpretation of findings and development of this report.

SOCIAL HISTORY

Kenneth Simmons was born on [REDACTED] in Summerville, South Carolina. Kenneth's parents were Eugene and Anna Simmons. It was the third marriage for Mr. Simmons and the second for Ms. Simmons. Between the two of them they had twenty children. Kenneth was the youngest boy and second ~~oldest~~ child of the twenty. Neither Kenneth, nor any of his siblings, were able to give any information about Ms. Simmons' pregnancy or delivery in regard to Kenneth.

Kenneth Simmons grew up in a three bedroom house in what was at the time a rural, African-American community in Summerville. The house had a wood stove for heat. They drew their water from a well and their bathroom, along with hogs and chickens, was outside. Mr. Simmons worked in a lumber yard and a golf course. While working on the golf course he had an eye knocked out by a golf ball. According to her children, Ms. Simmons was the disciplinarian in the family. She provided the structure in the home and was considered the center of the family and the neighborhood. The Simmons were reportedly good parents who guided their children to do right and to go to church.

By the time Kenneth was born there were six other children in the home. In order of age there were Eartha and Brenda (from Ms. Simmons previous marriage) and Collette, Michael, Juanita, and Gene. One other child, Annette, was born after Kenneth. The siblings all described the family as "close" as they were growing up. They all added that it was their parents who kept the family together, and after their death everyone went their own way.

Kenneth's primary memories of his childhood centered on his family. He recalled his mother being supportive to her family and her neighbors. Kenneth stated that his mother would give him peanuts or ice cream when he did well and a hit with a switch when he did not. He said that on Saturdays Ms. Simmons would allow Kenneth and his siblings to kill chickens and give them, along with bread she had made, to the neighbors who had nothing. Kenneth, and many of his siblings remembered Kenneth spending a great deal of time working in the garden with his father.

As a child Kenneth reportedly kept to himself, when he was not with his parents. He had a stuttering problem which he was teased about. This teasing caused him to mumble and stay to himself. All of his sisters who were interviewed stated that as a child, and a teenager, Kenneth was the only brother who did not get into fights.

Kenneth started school in 1967. He attended Alston Elementary School where his grades were low to average. Although he passed each grade, by the time he was in the sixth grade his overall achievement was only grade four. Kenneth's recorded I.Q. in elementary school varied from 69 to 104. In speaking with Dr. Margaret Odom, a psychologist currently with the Dorchester County School District, she explained that testing during the time Kenneth attended Alston Elementary was done with an testing instrument called the Science Research Associates-Primary Mental Abilities Group Testing which gave an I.Q. range and not a true I.Q.

Kenneth entered Summerville High School in 1975. His grades continued to be in the low range. Except for remedial English classes, it appears that Kenneth was not in any special education classes. Kenneth also played football in high school and was a defensive back on the 1979 State Championship team. One of Kenneth's coaches, Stan Yarborough, was asked how someone with low grades could play on a championship team. He explained that the team ran a very basic defense and as a defensive back, all Kenneth had to do was provide man-to-man or zone coverage. Mr. Yarborough, described Kenneth as a "follower," as did others who knew Kenneth well.

The year, 1978, appears to be a pivotal one in Kenneth Simmons life. In that year he met his future wife, Valerie, he failed the 11th grade, and most importantly, his mother died due to complications with her diabetes. At the time of Ms. Simmons' death she was confined to a wheelchair. Mr. Simmons was too weak himself to care for his wife, so it fell to Kenneth and Annette, the only two children left in the home, to take care of her. Kenneth stated that it was "the worst part of my life" when his mother died. All his siblings agreed that their mother's death hit Kenneth the hardest. One sister, Eartha, described Kenneth as being like a dishrag after their mother died. Another sister, Brenda remembered Kenneth saying he did not know what he was going to do now that his mother was gone.

As a result of the death of Ms. Simmons, 1978 was also the year Kenneth started drinking alcohol and smoking marijuana. He reported going to the "Tasty Freeze" across from the high school where he would "drink Thunderbird and smoke reefer." Even with the beginning of an alcohol and substance abuse problem, Kenneth managed to graduate from high school in 1980. In addition, he had no involvement with law enforcement during his juvenile years.

After graduating Kenneth started working for a pest control company. He reportedly worked steady and he and Valerie started planning to get married. As the plans progressed, they decided to move into the family home to take care of Mr. Simmons who was suffering from liver and kidney failure. In 1982, before they could move in, Mr. Simmons died.

Although Kenneth and Valerie did get married in 1982, Kenneth's siblings agree that Kenneth's life "went downhill" after the death of Mr. Simmons. Kenneth's drinking and drug usage became noticeable and he moved from marijuana to crack cocaine. He also started a succession of jobs with a fiberglass firm, a brickmason, carpenter, and a tree service. All of these jobs were laborer jobs. Kenneth was reportedly a good worker when he worked. However, he would often only work to get enough money to buy alcohol and/or drugs or miss work due to being intoxicated the night before.

In 1983 Kenneth and Valerie had a son, Kenneth Jr. and in 1987 the had a second son, Antonio. The marriage managed to continue until 1988 when Kenneth's alcohol and drug use caused Valerie to seek a separation. Ms. Simmons stated that Kenneth refused to seek any help for his substance abuse problems. She arranged for them to go to marriage counseling, but he refused that help as well. Since 1988, Ms. Simmons has had very little contact with Kenneth. During that same period of time Kenneth had only minimal contact with his sons.

By 1988 Kenneth's life began to revolve around alcohol and drugs. He moved from one acquaintance to another and occasionally stayed with family members. In 1992 he had his front teeth knocked out when he was hit with brass knuckles. Also by 1992, most of Kenneth's siblings knew that he had serious problems. They would urge him to seek treatment, but he would refuse. According to Kenneth's brother, Gene, the only time Kenneth even thought about getting help for his problems was when he was in jail.

Kenneth was first arrested in 1993 for receiving a stolen television. He was given five years probation. He was not arrested again until 1997 when he was charged with assaulting his girlfriend, Barbara Jones. Ms. Jones explained that on New Year's Eve, she and Kenneth had been drinking heavily when they got into a fight. The police were called and Kenneth was arrested. In court Kenneth was told he needed counseling, but he stated that he could not afford to go. Kenneth's only other arrest was for shoplifting meat in an attempt to obtain money to purchase drugs.

In addition to his first arrest, 1993 was also the year Kenneth became a client of Palmetto House, a shelter for the homeless in Summerville. He began spending occasional nights in 1994. According to Doris Russell, the Director of the program, Kenneth was a fairly regularly participant in the program until his arrest in 1997. Ms. Russell, as well as the Palmetto House volunteers who were interviewed, were aware that Kenneth was a substance abuser. Although they, like many of those interviewed, remarked that Kenneth made an effort to not be intoxicated or "high" when he visited people he loved and respected. To their knowledge Kenneth never participated in any treatment program while a client of Palmetto House. In fact, there is no evidence that Kenneth ever received any substance abuse treatment in his lifetime, even after he was hospitalized at MUSC in 1996 due to an drug overdose.

While Kenneth was a regular client of Palmetto House he came to be trusted by Ms. Russell and the volunteers. Ms. Russell would leave him alone at her house to paint or do yard work as did Robyn Schmieding. Everyone associated with Palmetto House who was interviewed stated that Kenneth was willing to do anything for anybody and was never violent. Ms. Russell added that she knew Kenneth was close to his father because Kenneth often talked about his "daddy" and that he carried with him a topcoat which once belonged to his father. Ms. Russell is keeping the topcoat for Kenneth.

CONCLUSIONS

In regard to the purpose of the evaluation, a number of conclusions can be drawn from a review of the social history.

a) The Simmons family was a close, structured family when Kenneth Simmons was growing up. As one of the youngest members of the family and one who was responsible for the care of his elderly, ailing parents, Kenneth was deeply affected by their death. After his parents died Kenneth lost the structure he needed and turned to alcohol and drugs as a way to cope.

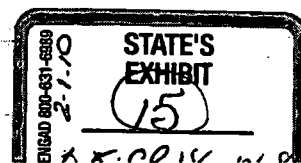
b) From statements by Kenneth Simmons and his family and friends it appears that Kenneth began using alcohol and marijuana in 1978 and by 1982 he was also using crack cocaine. His alcohol and drug abuse caused the failure of his marriage. From 1988 on, Kenneth had no permanent address, except Palmetto House and no stable employment.

c) Although Kenneth Simmons's last school recorded I.Q. indicates that he was mentally retarded, he played high school football and graduated from high school, he obtained a job in pest control upon graduation, got married, and had two children. However, as his alcohol and drug use increased, Kenneth's abilities to function as a viable member of society decreased. At times he was still the "nice guy" who everyone liked and trusted; a man who was described as child-like and who was not seen as a violent individual. Unfortunately his whole world revolved around obtaining and using alcohol and drugs and this addiction affected his behavior.

Defense Witness List2/6
Jr

Filed 2.22/9

Ms. Melissa Hess
Ms. Wanda Austin
Ms. Julia Trice
Carlos Torres
Dr. Judy McKay
✓ Dr. Randy Waid
Dr. Bart Saylor
Dr. Michael Foxworth
Dr. Alex Morton
Dr. Dennis Keyes
Jeff Jungman
Ron Ostrowski
Stan Yarbrough
Lt. Joe Means (SLED)
Gene Simmons
Annette Geddis
Brenda Washington
Brenda Johns
* Charles Ferguson
* Derek Duggins - 35
Angie Simmons - 32
Sandy Franklin
Charles Wilson
George McCain
Sinclair Mazyck
Doris Russell
Robin Schmieding



Paul Bucetti

Glen Youngblood

Felix Ross

Troy Waltz

Anthony Love

Danny Bates

Officers: (Summerville Police Dept.)

* Ron L. Thomason

Cheryl Bass

Chris Heintz

Dorchester County Detention Officers:

* Sidney Jackson

* Prescilla Johnson

* Emmett McKinney

Hall Institute:

✓ * Dr. Jeffrey Vidic

✓ * Dr. Thomas Behrmann

✓ S.C. Dept. of Disabilities and Special Needs:

✓ * Dr. Leslie Sandler

* Dr. Thomas MacAbee

4533

2/17/99

WITNESS LIST

DR. MICHAEL BAIRD
✓ DR. THOMAS BEHRMANN
DEBBIE BROWN
MARGARET BUSH
LAUREN CRANE
STEVE DERRICK
✕ DERRICK DUGGINS
✕ CHARLES FERGUSON
CATHERINE GAILLARD
LILLY GALLMON
GERALD GRETSCH
MAYBELLE HENDRICKS
JAN HILTON
EVERETT HOWARD
SAMUEL JACKSON
✕ SIDNEY JACKSON
MARGARET JAMES
✓ IRA JEFFCOAT
MARY JOHNSON
✓ PRISCILLA JOHNSON
BARBARA JONES
STEVE LAMBERT
DR. WILLIAM LOMAX
RON MANCHESTER
MATA MASON
✓ DR. THOMAS MCABEE
✕ EMMITT MCKINNEY
KENNY MEARS
GEORGE MURRAY
JOHNNY B. NEALY
• CLAY NICHOLS, M.D.
WILLIAM L. PENN, JR.
NATHAN PERRYMAN
ANN REESE
ROGER RUSSELL, M.D.
✓ DR. LESLIE SANDLER
NICHOLAS SARJI
BLONDELL SMITH
✓ RON THOMASON
MIKE TURNER
DR. JEFFREY VIDIC
PAULA WALSH

ROSEZEATTA WELLS
ROY WHITEHEAD
JESSE MAE WILSON
SUSIE WILSON
VIRGINIA WILSON
EARL WORSHAM

THE SUMMIT

Russell

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Tail

Mr. Robinson
 Mr. Seeger
 Ms. Johnson
 Mr. Carmichael

→ trustee / Kenneth Simmons

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Jim Bell
 (h) 563-4054
 #800-922-1373
 V. 1

Gene Simmons — brother

Annette Gaddis — sister

Polyn Schmieding — old friend

Sandy Franklin — nurse

Doris Russell — Director

Palmer Pottinger / Shelby

Stan Garbrough — ex-coach

Mary Ann Odom — school guidance counselor?

Colin Lanning — cousin

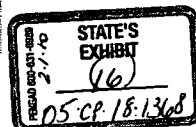
Gene McClain — minister

Charles Wilson — family friend

Dr. Alex Morton — expert

Teff Yungman

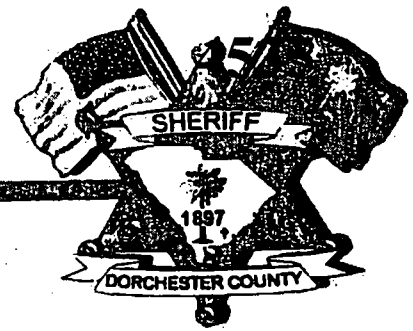
Major Moultrie



Office of the Sheriff

DORCHESTER COUNTY, SOUTH CAROLINA

Ray Nash, Sheriff



September 14, 1998

Uricchio, Howe, Krell, Jacobson, Toporek & Theos, P.A.
Attorneys At Law
17 ½ Broad Street
Charleston, SC 29401

Dear Mr. Theos:

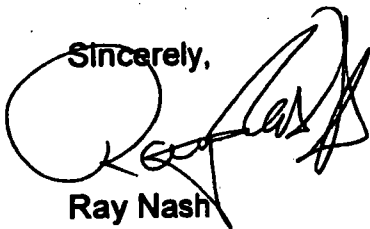
Thank you for your letter of August 28, 1998, calling my attention to your concerns regarding your client Mr. Kenneth Simmons.

First, let me say that Mr. Simmons is not in a disciplinary status nor has he presented any major disciplinary problems during his current period of detention. Mr. Simmons is housed in our "C" unit based upon his custody grade which is "maximum security", the result of an objective classification score. In addition, Mr. Simmons is also in protective custody due to the nature of his charges and the strong, emotional feelings some inmates may have who were acquainted with the alleged victim of his crime.

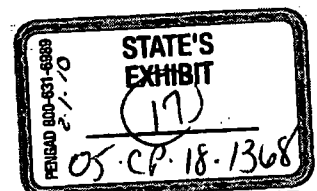
Having said that, Mr. Simmons participates in daily indoor recreation (out of his cell 2-3 times per day) and outdoor recreation approximately once per week, commissary twice weekly, library once weekly, bible study and church services, visitation, and telephone privileges. Unfortunately, we are not able to provide television services on his unit nor do I envision being able to do so in the future.

I believe that on balance I am providing your client with much more than the minimum requirements. Should he continue his good behavior Mr. Simmons will continue to enjoy the above stated privileges.

Sincerely,



Ray Nash
Sheriff



STATE OF SOUTH CAROLINA	)	IN THE COURT OF COMMON PLEAS
	)	
COUNTY OF DORCHESTER	)	Case No.: 05-CP-18-1368
	)	
KENNETH SIMMONS	)	
<i>Applicant,</i>	)	NOTICE OF INTENT TO RELY UPON
	)	THE AFFIDAVIT OF
v.	)	DR. CHARLOTTE WORD
	)	&
STATE OF SOUTH CAROLINA	)	DR. ROBIN COTTON
<i>Respondent.</i>	)	AS EVIDENCE IN REPLY

Applicant, Kenneth Simmons, hereby informs both the Court and opposing counsel that he intends to offer the Affidavit of Dr. Charlotte Word & Dr. Robin Cotton as evidence in reply. In support of this notification, applicant apprizes this Court of the following relevant facts:

1. Applicant's PCR Application alleges that the DNA evidence offered against him at trial was, in several respects, false, misleading, incomplete and incorrect ("the DNA claim"). Applicant intends to offer the Affidavit of Dr. Charlotte Word and Dr. Robin Cotton as reply evidence in support of the DNA claim. *See Affidavit of Drs. Word and Cotton, attached as Exhibit A.*

2. This procedure is authorized pursuant to S.C. Code § 17-27-80, which provides that, in a hearing on an application for post-conviction relief, "[a]ll rules and statutes applicable in civil proceedings are available to the parties. The court may receive proof by affidavits, depositions, oral testimony or other evidence and may order the applicant brought before it for hearing." Furthermore, this procedure has already been used Applicant's case and in numerous other capital post-conviction cases, *see, e.g., Herman Lee Hughes v. Michael Moore*, 98-CP-09-101 (Calhoun Common Pleas); *Joseph M. L. Gardner v. Michael Moore*, 98-CP-18-453 (Dorchester County); *Keith L. Simpson v.*

Michael Moore, 97-CP-42-1911 (Spartanburg County); *Kevin Mercer v. South Carolina*, 2009-CP-32-5465 (Lexington County). The South Carolina Supreme Court has specifically approved this process. *Simpson v. Moore*, 367 S.C. 587, 607-08, 627 S.E.2d 701, 712 (2006) (finding that the PCR court did not err in allowing the applicant to introduce over forty depositions and approximately twenty-two affidavits into evidence in lieu of live testimony); *see also, Beckett v. State*, 278 S.C. 223, 224, 294 S.E.2d 46, 47 (1982).

3. Dr. Word resides in Gaithersburg, Maryland and Dr. Cotton lives in Boston, Massachusetts. However, if the Court prefers to have Dr. Word and Dr. Cotton available to testify live in this case, or if respondent wishes to cross-examine them concerning the substance of their affidavit, they are willing to be available in person (with appropriate funding for travel expenses) or by telephone.

4. By way of this Notice, Applicant is serving a copy of his Reply Affidavit on opposing counsel and notifying opposing counsel that the contact information for Drs. Word and Cotton is as follows:

Charlotte Word
P.O. Box 5207
Gaithersburg, MD 20882
(301) 527-1350
cjword@comcast.net

Robin Cotton
Biomedical Forensic Sciences
Room R806a
72 East Concord Street
Boston, MA 02118
rw cotton@bu.edu

WHEREFORE, applicant requests that the Court accept this affidavit as direct testimony in reply in support of his DNA claim, or – in the alternative – notify the parties that it prefers to receive live testimony and will authorize funding for that purpose.

Respectfully submitted,

EMILY C. PAAVOLA

Death Penalty Resource & Defense Center

P.O. Box 11311

Columbia, South Carolina 29211

JAMES MORTON

Morton & Gettys LLP

334 Oakland Avenue

P.O. Box 707

Rock Hill, South Carolina 29731

BY: Emily C. Paavola
ATTORNEY FOR APPLICANT

March 17, 2011

ATTACHMENT A

AFFIDAVIT OF CHARLOTTE J. WORD, Ph.D. AND ROBIN W. COTTON, Ph.D.

Charlotte J. Word and Robin W. Cotton, being duly sworn according to law, upon their oath depose and say:

1. I, Charlotte Word, am a forensic DNA Consultant and a former Laboratory Director at Cellmark Diagnostics (which became Orchid Cellmark) in Germantown, MD. I was employed at Cellmark from April 1990 to April 2005.
2. I, Robin Cotton, am an Associate Professor at Boston University School of Medicine and the Director of the Biomedical Forensic Sciences Program. I was employed at Cellmark Diagnostics in Germantown, MD from January 1988 until August 2006. I served as Laboratory Director from 1994 until October 2005.
3. Cellmark Diagnostics in Germantown, MD was a private laboratory that conducted human DNA identification testing and was accredited in 1994 by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board. For many years the Laboratory was also accredited by the American Association of Blood Banks for parentage testing. As a private laboratory in business for over 17 years, Cellmark offered DNA testing services to a wide variety of clients including but not limited to, crime laboratories, prosecutors, defense attorneys, law enforcement, the military, and state and local agencies from around the country.
4. The curriculum vitae for Charlotte Word and Robin Cotton are attached to this affidavit as Attachments 1 and 2.

Background and Qualifications of Charlotte Word

5. I, Charlotte Word, received a Bachelor of Science degree in Biology from The College of William and Mary in Virginia, and a Ph.D. in Microbiology from The University of Virginia. I did a postdoctoral fellowship at the University of Texas Southwestern Medical School in Dallas, TX conducting research in the areas of molecular biology and immunology. I was on the faculty at the University of New Mexico, School of Medicine, where I did research and taught in the areas of molecular biology and immunology from 1984 to 1990. I have over 30 years of molecular biology experience and 20 years of experience applying molecular genetics techniques to forensic testing including experience with the majority of the scientific tests used in the United

States since 1990 for forensic human DNA identification testing. This includes the extensive use of restriction fragment length polymorphism (RFLP) and polymerase chain reaction (PCR) testing. I have experience in the application of the various, and now outdated, test procedures used in forensic casework including DQA1, PM (also referred to as "Polymarker"), D1S80 and short tandem repeat (STR) testing using the "CTT" and "CTT-A" GenePrint systems from Promega Corporation as well as with the current test systems using fluorescently-labeled STRs.

6. I have testified in well over 250 criminal and civil cases in approximately 22 states as well as in federal and military courts. I have testified in over forty Frye, Daubert, relevancy and other admissibility hearings in numerous states regarding the reliability and application to forensic science of RFLP and PCR testing including the statistical frequency calculations using multiple population databases associated with any evidentiary DNA profiles where an individual was not excluded as a source of the DNA. While at Cellmark Diagnostics I participated in the design of validation studies and subsequently wrote protocols and quality control procedures based on the validation data for many types of PCR-based testing methods. In 1998 and 1999 I was a member of the Post-Conviction Issues Working Group of Attorney General Janet Reno's National Commission on the Future of DNA Evidence and co-author of "Postconviction DNA Testing: Recommendations for Handling Requests" 1999, U.S. Department of Justice Office of Justice Programs. I am on the Editorial Board of the Journal of Forensic Sciences, which is the premiere forensic journal in the United States, where I serve as a peer reviewer and advisor to the editor.
7. As one of the Laboratory Directors at Cellmark, my major responsibilities included performing technical reviews of forensic casework, reviews of casework performed by other laboratories as a consultant to prosecution or defense attorneys, testifying as an expert witness, training laboratory DNA analysts, conducting and evaluating validation studies, and performing audits. The laboratory initially performed RFLP testing and then began PCR-based testing using DQA1 and PM kits, D1S80 and silver-stained STRs (specifically CTT and CTT-A) as the test systems became commercially available. By the late 1990's and through 2005, when the laboratory was closed and consolidated with the Orchid Cellmark laboratory in Dallas, TX, our laboratory

was performing PCR testing using the STR kits called Profiler Plus, COfiler, Identifiler and PowerPlex Y using gel or capillary-based instrumentation from Applied Biosystems for all of our forensic testing.

8. Since 2005, I have been reviewing forensic casework typed with the Profiler Plus, COfiler or Identifiler kits as a consultant for several laboratories in the United States, reviewing cases as a consultant for prosecution or defense attorneys and testifying in court among other responsibilities. Since 2006, I have been performing reviews of and writing reports for validation studies performed in various laboratories across the United States using the Profiler Plus, COfiler, Identifiler, Yfiler and MiniFiler PCR STR kits.

Background and Qualifications of Robin Cotton

9. I, Robin Cotton, received a Bachelor of Science degree in Biology and a Masters of Science degree in Biology from Southern Methodist University in Dallas, TX and a Ph.D. in Molecular Biology and Biochemistry from the University of California at Irvine in 1980. I did postdoctoral work in the Department of Biochemistry at the University of Iowa Medical School and at the National Institutes of Health in Bethesda, MD. I have 22 years of experience in the application of molecular biology and genetics to forensic DNA testing. I have testified in approximately 250 cases in 35 states. I have served on the Paternity Testing Standards Committee for the American Association of Blood Banks and I served as an elected member of the Board of Directors of the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) from 2002 to 2006. I am currently serving a second term on the ASCLD/LAB Board of Directors. I also serve on the Editorial Board of the Journal of Forensic Sciences.
10. I worked for Cellmark Diagnostics from January 1988 until October 2006. During most of this time I served as the DNA Technical Leader for the laboratory. I shared responsibilities for validation work and forensic case review with Dr. Charlotte Word and others. I have extensive forensic casework experience with the following test systems: RFLP testing, DQA1/PM testing, the STR systems referred to as CTT-A, and the currently used STR test kits Profiler Plus, COfiler, Identifiler, and PowerPlex Y. I have testified in court in both admissibility hearings and trials presenting results and conclusions as well as statistical frequency calculations using all of these DNA test systems.

11. I am currently employed at the Boston University School of Medicine as the Director of the Biomedical Forensic Sciences Program which awards students an M.S. Degree in Biomedical Forensic Sciences. I teach a course in Forensic DNA Analysis and Advanced topics in DNA Analysis. I am the Principal Investigator in a grant from the National Institute of Justice (NIJ) designed to develop training materials for mixtures containing DNA from more than one person. Dr. Word also participates in this grant activity as a contractor to Boston University School of Medicine.

General Information

12. We were recently asked by Ms. Emily Paavola to review some documents in the case of *Kenneth Simmons v. South Carolina*. We have received and reviewed documentation that contains copies of case notes and records from case numbers 61583 and 68554 from Lifecodes Corporation of Stamford, CT (with Bates stamps of 001-236) as well as several trial transcripts and depositions of Dr. Michael L. Baird and Ms. Lauren Crane. These records include what seem to be scanned versions of film results from CTT testing gels as well as a number of reports issued by Lifecodes Corporation.
13. All forensic DNA tests examine DNA locations on specific chromosomes. At any DNA location each person has two types ("alleles" is the formal scientific term). Not all DNA tests provide the same amount of genetic information or have the same ability to discriminate one individual from another. The high power of discrimination possible with current DNA test methods as compared to the methods available in the mid-1990s is a result of two critical features of these test methods. The first feature is that the current tests examine information at 13 or 15 genetic locations. The second feature is that each DNA location (termed "locus") tested in the test panel has a large number of possible alleles (minimally between 8 and 28). The power of discrimination of the DQA1/PM test was much lower than the current DNA testing methods since only 6 genetic loci were tested and the variation in the number of possible alleles at each of the loci ranged from only two to seven. The CTT test uses only three of the currently tested STR loci.

Synopsis of the Critical Problems in Testing and Testimony by the Lifecodes Laboratory

14. A large number of problems in the laboratory testing and reporting procedures and in the testimony by the Lifecodes Laboratory were identified

in our review. We list below the most critical problems identified.

Background information, further supporting detail and descriptions of additional problems follow.

15. **Critical Problem #1:** The chart used to assist with both Dr. Baird's and Ms. Crane's trial testimony contains data that are completely unsupported by the laboratory notes and results provided. No records exist in the case documentation for the CTT test results that were used to include the defendant as a source of the sperm DNA. That is, some of the data appear to be fabricated. The CTT testing for the male fraction of FI56384 was not done, yet results including the defendant were reported in the table. Furthermore the CTT testing for the male fraction of FI56386 were reported incorrectly; the actual results are consistent with the results of L. Boyd and *not* the defendant as shown in the table.
16. **Critical Problem #2:** Dr. Baird, in his trial testimony and later in his deposition, provides a statistical frequency of greater than 1 in 1 billion based on the *defendant's known alleles* at all DQA1/PM and CTT loci. The frequency presented should have been based only on the results from the evidence which are in common with results from the defendant's known standard. In this case, statistical frequency calculations should have only been performed using the DQA1/PM test results. It is never appropriate to report results in the manner used by Dr. Baird; presentation of the approximate frequency of the defendant's known sample completely misinforms the jury regarding the strength of the evidence. No credible forensic scientist would report the results from DNA testing in this manner.
17. **Critical Problem #3:** There are no case records that indicate that a critical and required control for all PCR testing was performed. This control is generally referred to as an extraction blank or a reagent blank control. The importance of using this control for detecting spurious contamination was known at the time that the testing in this case was done.
18. **Critical Problem #4:** Based on the documentation available, when the sperm fraction from one set of vaginal swabs was tested using several different test systems, the results generated were inconsistent across the various tests. The reported presence of sperm from the vaginal swabs and the observation that a mixture of DNA from two or more individuals was present in the DNA extract are contradictory to the CTT results which indicate that DNA was

present from a single individual and the gender-typing test results that indicate the presence of DNA only from a female. These findings are unexpected if the *same* DNA extract from the sperm fraction of the vaginal swab was tested with the three different assays.

Records and Reports Reviewed

19. We have reviewed the Preliminary report dated October 25, 1996, and the report dated November 18, 1996, which pertain to DQA1 and PM test results from evidence samples collected from Lillie/Lilly/Lily Boyd (henceforth L. Boyd) as well as the reports dated January 23, 1998, and February 2, 1998, which pertain to the DQA1, PM and CTT test results for a blood vial from Kenneth Simmons. In the documentation provided, we could find no Lifecodes report stating the CTT results obtained for the DNA from the evidence samples from L. Boyd or any report documenting the findings and conclusions using the CTT data.
20. The copies of the case notes provided do not have sufficient quality reproductions of the DQA1 and PM testing strips to allow for our independent review and interpretation of the data from any of the samples tested nor from the positive or negative amplification controls. All conclusions given in this Affidavit regarding the DQA1 and PM results in this case are based on the data reported in the above-referenced Lifecodes' reports, which we have assumed to be correct and with the assumptions that all results reported were of equal or higher intensity than the control dots on each of the test strips, and that the positive and negative controls used during the testing worked correctly. All statements regarding CTT results are based on our review of three CTT films, two exposures dated 1/29/98 and one dated 1/23/98. A summary table of results that we relied upon to form the opinions stated below are shown in Attachment 3, Table 1 and Table 2. Should future information demonstrate that the control samples did not work correctly, that any of the reagents used were contaminated or that any of the results reported are incorrect, then the following comments, opinions and conclusions would need to be re-evaluated.
21. The Preliminary Report dated October 25, 1996, lists a number of items received for this case, including FI56382-60 ("...slide labeled vaginal swab of Lillie Boyd"), FI56384-62 ("1 Swab labeled vaginal, Lillie Boyd frozen in saline"), FI56386-64 ("2 Swabs labeled Lillie Bell Boyd, vaginal") and

FI56389-67 (1 Swatch of Blood labeled Lilly B. Boyd"). This report states "Data suggests that sperm was visualized in samples FI56382, FI56384, and FI56386." This statement is awkward and hints that there may have been a problem confirming the presence of sperm. The copies of the photographs labeled "56384" and "56386" (Bates page 066) provided to us were of insufficient quality to verify the presence of sperm. We did not find a photograph labeled FI56382.

22. Generally when sperm are detected in a sample, and particularly when the DNA profile of the sperm-donor is of primary interest in a case, it is the practice of crime laboratories to use a differential lysis extraction procedure that splits the DNA from a sample into two fractions. Ideally using this procedure, one fraction, which we refer to as the "sperm fraction", will contain all or most of the sperm present in the sample and will generate a DNA profile containing the DNA from the male contributor(s). However, DNA from the female may also be present in the sperm fraction. Lifecodes does not have a distinguishable designation for this fraction in their notes other than a sample number without a suffix, but the term "male fraction" is often used in the reports. The second fraction, which we refer to as the "non-sperm fraction" (designated "F" or "♀" by Lifecodes) is enriched for cells from the sample that are not sperm (e.g., blood, skin). The non-sperm fraction obtained from vaginal swabs frequently contains only a DNA profile of the female from whom the samples were collected, but may contain DNA from a male contributor particularly when a large number of sperm are present in the sample. Lifecodes performed the differential extraction procedure on the two vaginal swab samples, which is the appropriate procedure to use when sperm may be present. It seems from the notes (Bates page 065) that they did not use a differential extraction procedure for the vaginal slide sample FI56382-60, which was extracted at another time with a different procedure, for undocumented reasons.

DQA1/PM Test Results and Conclusions

23. The DNA from sample 56382 was amplified with the DQA1/PM kit on 10/22/96 (Bates page 071) and results are recorded on Bates page 073 and in the report dated November 18, 1996. All of the reported results are consistent with the results obtained from the DNA from L. Boyd. There is no documentation suggesting that DNA from a second individual was observed

even though Lifecodes had reported that sperm had been detected on this sample. It is possible that the sperm DNA was not released with the extraction procedure used.

24. The DNA from the sperm and non-sperm fractions of samples 56384 and 56386 were amplified with the DQA1/PM kit on 10/22/96 along with the DNA from samples 56389 and 56382. Results are recorded on Bates page 073 and in the report dated November 18, 1996. The reported results for the non-sperm fractions (designated "F" in the report) from the two samples are consistent with being from a single individual and are the same as the results reported for the DNA from L. Boyd. There is no documentation suggesting that DNA from a second individual was observed in either of these non-sperm fractions.
25. Results were reported in the report dated November 18, 1996, for the sperm fractions of the two vaginal samples. Both samples gave the same results and therefore the conclusions for the two samples will be identical. The data in parentheses (which indicates results of reduced intensity compared to the other result per the table footnote) at the D7S8 and GC loci, along with the observation of three results at the GC and DQA1 loci, indicate that a mixture of DNA was obtained from these two sperm fractions. It is not possible to determine the number of contributors to the DNA obtained from these samples – simply that there are two or more DNA contributors to the mixed sample. All of the results at the 5 PM loci (LDLR, GYPA, HBGG, D7S8, GC) with the exception of the 3 alleles listed in parentheses are consistent with the results of L. Boyd. Two of the results at the DQA1 locus (2 and 4.2/4.3) are consistent with the results from L. Boyd. Since all of the alleles from L. Boyd are present in the sample results, she is included as one of the possible DNA contributors.
26. Since it cannot be determined whether there are only two sources of DNA in the sperm fractions of the two vaginal swabs or whether the DNA results are from three or more sources, the DNA test results should be considered using two different sets of assumptions. Under Assumption Set 1, no assumptions are made regarding the number of contributors except that there are at least two contributors. As a result of not restricting the number of contributors, it is impossible to make any determination regarding which alleles from the different loci belong together to constitute a DNA profile from one contributor;

for example, it is not possible to link the fainter results from D7S8 with the fainter results from GC as the results could come from two separate contributors. One may also either assume that L. Boyd is one of the contributors to the DNA results observed or that she is not one of the contributors. Under Assumption Set 1, everyone is included (and therefore no one is excluded) at the LDLR, GYPA, D7S8 and GC loci since all possible results were detected with this assay. These loci are not meaningful for these samples and cannot be used in any way to exclude anyone who is not a source. Only the results at the HBGG and DQA1 loci are helpful in excluding an individual who is not a source. As shown in Table 1, only individuals with BB, AB, or BC at the HBGG locus *or* any combination of genotypes containing at least one allele that is 1.3, 3 or 4.1 can be excluded with this assay under this assumption.

27. Also shown in Table 1 are the genotypes of individuals who would be included at these two loci. We have calculated statistical frequencies for the combination of genotypes that could be included in the sperm fraction from these two samples; a table showing the genotypes, their frequencies and the combined frequencies are shown in Table 3 of Appendix 3. The frequency of all randomly selected individuals who would be included as a possible contributor is approximately 1 in 2 in the African American population and approximately 1 in 8 in the Caucasian population. The Lifecodes reports do not state any assumptions used in the interpretation of these results, however, it is clear that this set of assumptions was not considered since ten of the twenty-six individuals tested with complete DQ/PM profiles cannot be excluded (or are included) as possible contributors to the mixed DNA profile, yet all of them were reported as excluded in the various Lifecodes reports. In fact, it is interesting that one individual tested had the identical DQA1/PM profile as L. Boyd and obviously cannot be excluded from any sample for which she is a contributor.
28. Under Assumption Set 2, we assume two contributors to the mixed DNA obtained from the sperm fractions of the two samples and that L. Boyd is one of the contributors. Under this assumption some of the alleles that must be present in the profile of the second contributor can be determined (see Table 1). For example, the second contributor must have the fainter B detected at the D7S8 locus (with or without an A) as well as the AC genotype at the GC

locus since those results are not contained in the profile of L. Boyd.

Furthermore the second contributor must also have the 1.1 allele at the DQA1 locus and that allele can be in combination with a 1.1, 1.2, 2 or 4.2/4.3 allele. (But also see the comment in #45 below). As with Assumption Set 1, the LDLR and GYPA loci are useless for excluding an individual who is not a true contributor since L. Boyd is heterozygous and has both possible types in her profile. As before, any individual with a B allele in any combination with the other alleles (i.e., BB, AB, or BC genotype) at the HBGG locus can be excluded as a contributor since no B was detected for these samples.

However, with the restriction of only two contributors and L. Boyd being one contributor, it is now possible to exclude an individual with an AA genotype at the D7S8 locus as the second contributor since the B allele is a requirement for the second contributor. Similarly, anyone with a genotype other than AC can be excluded at the GC locus and anyone without a 1.1 allele is excluded at the DQA1 locus. We have calculated statistical frequencies for the combination of genotypes that are included for the two sperm fraction samples under Assumption Set 2 (see Table 3), and they are approximately 1 in 336 random individuals in the African American population and approximately 1 in 145 individuals in the Caucasian population. The DNA profile of Kenneth Simmons does contain the requisite four alleles and/or genotypes under this Assumption Set to be included as a possible contributor. We do not see any documentation in the case file or in any report that Lifecodes calculated the frequency of the alleles of the second contributor in the DNA mixture, although it seems that this is the set of assumptions used by Lifecodes for their interpretation and reporting.

29. As previously stated, it is not possible based on the DNA test results alone to know if the DNA obtained from the sperm/male fraction of the vaginal samples contains DNA from only two individuals, or more than two individuals. Therefore it is not possible for a DNA analyst or expert to determine if one of the assumption sets is more appropriate to use, and without additional information, it is prudent to report the conclusions under both assumption. Only in the context of other information related to the case might it be possible to give more credence to one assumption set over the other.

CTT and Amelogenin Test Results and Conclusions

30. According to the notes on Bates page 150, the non-sperm fraction of sample 56384 and both fractions of sample 56386 were amplified using the CTT system on 1/15/98. The notes also indicate that there was no remaining 56384 sperm fraction sample. It should be noted that the chart used in trial testimony does show CTT results for this sample. CTT gels results dated 1/23/98 (Bates page 197) show that there are no results for the non-sperm fraction of 56384, but that there are clear results for both fractions of sample 56386. The darker results for both fractions are the same and are not consistent with the results obtained for 68555 (Simmons). Some additional faint bands are present in the 56384 non-sperm fraction, however they are in the position of and consistent with the appearance of common artifacts of this type of testing called stutter. Based on the data available to us, it is not appropriate to conclude that there is DNA from a second individual present in this sample, and these faint bands should not be interpreted. A second CTT amplification was performed on 1/27/98 (Bates page 152) using five times more DNA for the 56386 sperm fraction (designated "56386 II) and also including the 56389 sample. These results are present on Bates page 195 and the results obtained are shown in Table 2 of the Attachment 3. The results for the sperm fraction from 56386 are virtually the same with perhaps a bit more background from the sample amplified on 1/27/98 as compared to the sample amplified on 1/23/98. Some possible faint bands in the stutter position are seen on several of the samples. The results from the two amplifications and gels are consistent and there is no clear indication that there is DNA present from a second individual based on the data provided. All of the CTT results for the three loci CSF1PO, TPOX and TH01 apparent on the films dated 1/23/98 and 1/29/98 (see Table 2) are consistent with the DNA profile of L. Boyd, the person from whom the samples were collected. Although Kenneth Simmons is excluded as a source of the DNA profile observed, it is not possible with this assay to make any determination regarding a possible source of the sperm observed on these samples since there was no DNA profile detected from a second individual.
31. On 2/9/98 the notes (Bates page 115) indicate that the non-sperm fraction of 56384 and both fractions of 56386 were amplified with primers for the amelogenin locus. This testing allows for the determination of the gender for

the source of a DNA sample. Based on the results present on Bates page 196 dated 2/10/98, all three samples show only a band for the X chromosome, consistent with the DNA being from a female (see Table 2 in Appendix 3). There is no hint of a band at the Y chromosome (i.e., male) location therefore these samples contain DNA from a female. The signal for the X chromosome is quite intense, and we would have expected to clearly see a band for Y if the sample contained DNA from a male in any appreciable amount. If there is any DNA from a male present in these samples, the amount is far below the detection capabilities of this system and very likely below the detection capabilities of the other PCR-based assays used. We did not receive a Lifecodes report stating that this testing was performed or documenting the findings and conclusions.

32. Given that the DQA1 and PM results from the 56386 sperm fraction indicate the presence of DNA from a second individual, it is expected that DNA from a second individual should have been detected with the CTT testing of the same DNA. Furthermore, if the second individual was the sperm donor, then a Y chromosome band should have been detected with the test at the amelogenin locus. We do not have a good explanation for the absence of DNA from a second individual when the 56386 sperm fraction samples were amplified with the CTT test system nor the absence of a Y chromosome when this sample was tested using the amelogenin locus primers. Some possibilities include: 1) a different DNA sample was used for the DQA1/PM vs. CTT and amelogenin amplifications; however, there are no notes indicating that a second extraction of the sample was performed. 2) Perhaps the amount of DNA available from the second contributor was so small compared to the amount of DNA from L. Boyd (or other contributor) that it was right at the limit of the PCR detection systems used and only the DQ/PM results were visible. Good quality reproductions of the original DQA1/PM test strip photographs would be needed to address this possibility. 3) Alternatively, some contamination event could have occurred only during the DQ/PM testing of the samples that introduced the additional results, and there is, in fact, no DNA present from a second contributor in these samples.
33. Similarly, DQA1 and PM test results as well as amelogenin test results were obtained for the non-sperm fraction of sample FI56384; however, there were no results for this fraction when tested with the CTT assay. These three DNA

test systems detect DNA fragments of similar length and it is our experience that results were generally observed with one system if good results were obtained with the one of the other systems and a sufficient amount of DNA is available for testing. Given this, the best explanation we have at this time for the lack of observable results using the CTT assay, and in light of the fact that more DNA was used in the CTT amplification, is that there was an error during testing. It is possible that either no sample was introduced into the tube during the CTT amplification or into the gel for displaying the results. There is no indication that this sample was re-amplified or re-run.

Lifecodes Reports and Testimony

34. The Lifecodes report dated November 18, 1996, correctly states that a mixture is indicated in the male (or sperm) fractions from the two vaginal samples and that L. Boyd is not excluded as a possible contributor. Many other individuals were tested and their test results were reported in a number of other reports. We have not reviewed those reports other than to confirm that all of the individuals except Kenneth Simmons were excluded by Lifecodes as possible contributors. These conclusions are correct under the Assumption Set 2 but incorrect for some of the individuals if the sample contains DNA from more than one individual. The reports dated January 23, 1998, and February 2, 1998, also correctly state that L. Boyd and Kenneth Simmons are not excluded as contributors using the DQA1 and PM profiles, however the conclusion under section IV of the February 2 report is not limited to just the DQA1 and PM results and could be easily misleading or misinterpreted given that CTT results for Mr. Simmons were also reported.
35. The last page of the February 2, 1998, report provides a statistical frequency for the DQA1/PM and CTT profile of Kenneth Simmons. Not surprising, it is quite rare, and falls in the range of statistical frequencies commonly reported in the 1990's for profiles containing results from the combination of the 9 loci tested in this case. It is our opinion, however, that this calculation should not have been performed nor provided in the report since it is the frequency of the known individual's profile rather than the appropriate statistical frequency from the relevant item of evidence in the case. Generally the relevant question in cases such as this is "What is the statistical frequency of the sperm donor's profile in the sperm fraction of the vaginal swabs?" and not "What is the frequency of the DNA profile of the suspect in this case?" Since

these two frequencies address significantly diverse questions and provide calculations for only a few loci for the evidence sample from only one of the tests performed vs. 9 loci for the suspect's standard, it is not surprising that they differ by many orders of magnitude.

36. Given that it was not appropriate to report the suspect's profile frequency in the first place, it is our opinion that it was completely inappropriate to provide the frequency to the jury during court testimony for two reasons. First, Dr. Baird was not answering the appropriate relevant question for the evidence in this case, and second, the CTT results should not have been included in the calculations. In our opinion, the prosecutor was trying to ask the correct questions during the direct examination of Dr. Michael Baird as stated on page 1480, lines 9-12 and in a different way on page 1480 lines 22-25 and page 1481, lines 1-2 and then again on page 1481, lines 14-29 of Dr. Baird's transcript (although it would have been helpful to have had the additional clarification regarding the types that could not be accounted for by L. Boyd):

Q. "What percentage of the Caucasian population would be excluded as the donor of that semen in the male fragment [sic] of the vagina [sic] swabs taken at Lilly Bell Boyd's autopsy?"

Q. "So to ask that question in a different way perhaps, Doctor, using that chart; what is the probability of a randomly chosen person unrelated to Kenneth Simmons having the same genetic profile as to the genetic profile found in the semen from the vaginal swab taken from the autopsy?"

Q. "Dr. Baird, using that chart, please explain the probability of a randomly chosen person unrelated to Kenneth Simmons having that same genetic profile, the genetic profile found in the semen on this chart, the vaginal swabs taken from the autopsy?"

37. However, the question answered by Dr. Baird throughout his testimony at trial was instead "What is the frequency of Mr. Simmons' 9 locus profile in the general population?", even when asked again on page 1482, lines 4-5, "And you also see that same profile in the male fragment of the vaginal swab?" He even specifically stated the use of the "nine different genetic tests done in this case." (page 1481, lines 24-25). Since there were no results common to Mr. Simmons obtained during the CTT testing, the CTT loci should not have been included at all in the calculations for the evidence or presented to the jury in

any manner. We feel that Dr. Baird's testimony was grossly misleading and that he erred in answering the questions the way that he did.

38. A table, listing the samples tested in this case along with the DQ/PM results as reported in the report dated November 18, 1996, is present in the Lifecodes laboratory files on Bates page 015 and attached here as Attachment 4. Both the table in the report and the table on page 015 have a minor typographical error under the HLADQA1 results for the sample FI5634 Female fraction; that is, the two 4 alleles should be separated with a slash mark and presented as "4.2/4.3" rather than with the comma separating them. However, based on the information provided in the Lifecodes case file, and particularly based on the CTT gel results dated 1/23/98 and 1/29/98, it is our opinion that *all* of the results listed under the columns for the CTT system (i.e., CSF1PO, TPOX, TH01) are incorrect, with only two exceptions. It is our understanding that this table was introduced in court as State's Exhibit 24 and relied upon for testimony during Ms. Crane's and Dr. Baird's testimony. Our summary of the results are shown in Attachment 3, Table 2 and a corrected version of the chart presented in court by the Lifecodes witnesses is provided in Attachment 5. It is our opinion that the following errors exist in the table on page 015:

- a. For the blood sample of Lilly Bell Boyd, no results are listed. The results should be 10, 12 for CSF1PO; 9 for TPOX; and 8 for TH01.
- b. For the blood sample of Kenneth Simmons, the CSF1PO results are stated incorrectly. The results should be 10, 12. The correct results are stated for the TPOX and TH01 loci.
- c. For the male (sperm) fraction of FI56384, the table lists results consistent with the incorrect DNA profile of Kenneth Simmons. However, the laboratory notes (Bates #150) state "Note: No sample 56384 left". There is no indication that testing was performed on this sample with this assay and there is no lane of results for this sample on either of the gels. All results reported in the table are incorrect and should be changed to "Not Done".
- d. For the female (non-sperm) fraction of FI56384, the table is blank. This sample was tested, however, no results were obtained (also see #17 above). The table should say "No Results".

- e. For the male (sperm) fraction of FI56386, the table lists results consistent with the incorrect DNA profile of Kenneth Simmons. None of these results are correct. The results should be 10, 12 for CSF1PO; 9 for TPOX; and 8 for TH01. These results are all consistent with the results obtained for L. Boyd and exclude Kenneth Simmons as a source of the DNA.
 - f. For the female (non-sperm) fraction of FI56386, the table is blank. This sample was tested and the results should be listed as 10, 12 for CSF1PO; 9 for TPOX; and 8 for TH01. These results are all consistent with the results obtained for L. Boyd and exclude Kenneth Simmons as a source of the DNA.
39. It is our opinion that the table on page 015 should never have been presented to the jury during the trial. It is also our opinion that the experts should not have relied on this table in any way to aid in their presentation. The table is factually wrong and can only be misleading to the trier-of-fact. It should have been corrected prior to any testimony being given on it, and at the least, both of the witnesses should have corrected it during testimony. It is our opinion that there is absolutely no possible way, based on the testimony of the two DNA witnesses, that the jury could have had any indication that the data were inaccurately displayed in this exhibit. The inaccurate presentation of data in the sperm fraction of two different samples along with the false representation that the results are the same as those from the defendant in this case, in conjunction with the testimony referencing this table while stating that Kenneth Simmons cannot be eliminated as a contributor, plus the testimony implying that DNA from a male was present in the samples (see # 42 below) while including the completely inappropriate statistical frequency is clearly a gross compilation of errors that can be nothing but prejudicial to the defendant. Dr. Baird was even asked (page 1475) "Is anything inconsistent at any time with Mr. Simmons there?" and his response was "No" even though all of the CTT results were not consistent with Mr. Simmons.
40. Review of the case file indicates that a number of other tests were performed on the DNA from the vaginal samples in this case. However we did not receive any reports from Lifecodes stating that these tests were performed nor were the findings and conclusions from the testing apparent in the notes or in any report. These additional tests include:

- a. On 11/1/96 (page 075), samples 56382, both fractions of 56384 and 56386 and 56389 were amplified with D1S80 primers. Twice the volume of DNA that was used for the DQ/PM amplification was used for each sample during this amplification.
 - b. On 11/27/96 (Bates page 113), samples were amplified for "D12".
 - c. Bates page #190 shows a film labeled D4S163, dated Oct 28 1996, with no apparent results.
 - d. Bates page #191 shows a film labeled D17S79.
 - e. Bates page #189 shows a film labeled D2S44, dated Nov 11 1996, with no apparent results.
41. On page 1462 of the trial transcript of Ms. Lauren Crane, she testified that sperm were detected on the oral swabs using "the same isolation procedure and a microscopic visualization for sperm." She further states on page 1463 that she did not perform PCR analysis on the swabs "because the amount of sperm that we visualized microscopically wasn't of the same quantity to obtain DNA results on [sic] there were only a few sperm seen." We received no notes or photographs documenting anything related to the DNA testing of the oral swabs or microscopic examination of the sample in this case, nor were these findings reported in the Preliminary Report or any subsequent report that we saw.
42. Our interpretation on page 1469, lines 7-18 of the trial transcript of Ms. Lauren Crane is that she is stating that the DNA from the sperm/male fraction of the DNA is a mixture of DNA from a male and a female. Based on the information that we have received to date, this is an incorrect statement as there are no results present in the laboratory case notes nor in any of the reports that show any indication that DNA from a male was verified.

Additional comments

43. We are particularly concerned that there is no indication that reagent (also termed extraction) blanks were used during the testing of any of the samples in this case. The introduction of a reagent blank control tube at the beginning of all DNA extraction procedures was recommended in all publications regarding the application of PCR testing to forensic samples and was a common practice in crime laboratories performing PCR testing. The need for a reagent blank is specifically stated on page 62 of the *TWGDAM Guidelines for a Quality Assurance Program for DNA Analysis* (Crime Laboratory Digest,

vol 18, No. 2, 1991), which was one of the authoritative documents regarding quality control in the forensic DNA testing laboratories in the 1990s.

Guideline 7.5.1.1 states: "Negative controls to be included with each sample set are: a) a reagent blank and b) an amplification blank." All chemicals and solutions added to the test samples during PCR testing are simultaneously added to the reagent blank tube as it is tested along with all of the associated samples throughout the entire PCR testing process. At the end of the test, it is expected that the reagent blank control should have no detectable results, thus, confirming that no human DNA was inadvertently introduced by the laboratory in the materials used during the test. In the absence of verified negative reagent blank controls, extreme caution must be used when interpreting the DNA test results from this case, particularly any results of reduced intensity to the primary results, such as the DQ/PM results that include Mr. Simmons.

44. Dr. Baird testified in trial (page 1455, line 21 through page 1456, line 6): "We also have quality controls built into the testing that we do ourselves at Lifecodes which include a human control DNA that we test at the same time of the samples. We also have a negative control built into our analysis. In other words, to make sure that we are not inadvertently introducing DNA from an outside source into the testing procedure." We believe that in this testimony, he is only referring to the positive and negative amplification controls, which are introduced into the testing process at the DNA amplification step. Since these two controls are introduced at the amplification step, which is the step that follows DNA extraction and quantitation, they can in no way act as any type of control for the various chemicals and reagents that were introduced during the many sample manipulations used in DNA extraction of samples containing sperm.
45. Due to the inconsistencies in the DNA testing results described in paragraphs #32 and #33 above, it is critical to verify that the DQ/PM test results were true results that were accurately reported and not due to known artifacts that occurred during this type of testing. Without good quality reproductions of the original DQ/PM strip results it is not possible to verify the quality of the DNA test results in relation to each other or in relation to the "S" and "C" control dots present on each test strip. It is also not possible to determine if the 1.1 dot observed with the DQA1 test is a dark or faint result. Faint 1.1 results

were commonly observed with this test in samples that did not contain the DQA1 1.1 allele (see Crouse, et al. *Analysis and Interpretation of the HLADQα "1.1 Weak-Signal" Observed During the PCR-Based Typing Method*, J. Forensic Sciences 39:41-51, 1994). Since this is the only allele detected at this locus that may be potentially associated with the sperm donor in this case, it is important to determine that the result is, in fact, a true result rather than an artifact of the testing.

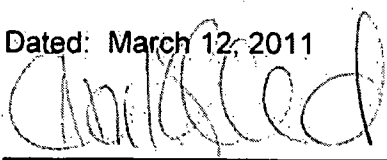
46. Dr. Baird's testimony on the bottom of page 1476 of his trial transcript is contradictory to the information stated in the Lifecodes report dated February 2, 1998, and in discovery materials (Bates page #167) regarding the data bases used for calculations. The trial transcript states that databases from the manufacturers Perkin-Elmer and Promega were used, the laboratory report instead references a database published by the FBI and from Palm Beach County Sheriff's Office, whereas the letter from Dr. Baird dated October 22, 1998, in response to a discovery request states that the databases used were from the FBI and Perkin-Elmer.
47. Review of the laboratory notes suggests that either there are pages of documentation that were not provided or significant portions of the testing procedures were not documented in the notes. For example, there is no documentation regarding the gel run for the CTT results dated 1/23/1998, although there are notes documenting the amplification of the samples and the product gel.
48. There are notes regarding a sample from another individual received and tested for this case on Bates page 083. No additional notes for this sample were provided and we could find no report stating the results obtained from this sample.
49. In conclusion, it is our opinion that:
 - a. The totality of the DNA data in this case that can be used for comparison purposes to assist with the determination of the possible source of the DNA from the vaginal samples that cannot be accounted for by L. Boyd is only 4 alleles. Based on the frequency of these alleles in the population, it is very likely that many other people in the United States (and the world) would share this series of alleles.
 - b. The final report from the Lifecodes laboratory stating the failure to exclude Kenneth Simmons as a contributor of DNA while presenting inappropriate

statistical frequencies along with the testimony of the DNA expert witnesses was confusing and can only be viewed as misleading to anyone without the whole set of accurately presented data.

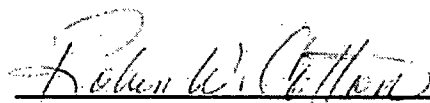
- c. The table of results presented at trial to the jury and relied upon by the witnesses was fraught with errors that can only be viewed as prejudicial to the defendant.
- d. The work performed in the Lifecodes laboratory was not performed according to generally accepted practices and procedures in crime laboratories.
- e. Much of the testing performed on the samples in this case was not documented in a laboratory report at any time, including data that were misrepresented to the jury at trial.
- f. Discrepancies in the test results in this case were not addressed in the laboratory notes, reports or testimony.
- g. It is important that trained DNA expert(s) review the original case file, retained at the Orchid Cellmark laboratory in Dallas, TX, to include all notes, original data and photographs to be able to fairly evaluate and interpret the data, review case notes that have not been previously recognized as part of the case file and provided, and to independently reach conclusions regarding the data obtained for this case, the laboratory's testing procedures, and the discrepancies in the test data.

We affirm, under penalty of perjury, that the foregoing is true and correct to the best of our knowledge.

Dated: March 12, 2011

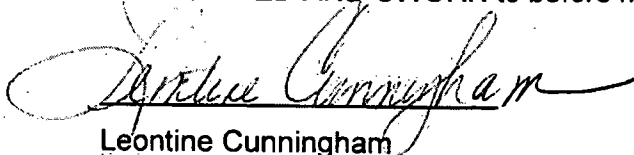


Charlotte J. Word, Ph.D.



Robin W. Cotton, Ph.D.

SUBSCRIBED AND SWORN to before me this 12th day of March 2011.



Leontine Cunningham

State of Maryland, County of Montgomery

My commission expires 12/1/2013

Attachment 1

Curriculum Vitae

Charlotte J. Word, Ph.D.

Education

Ph.D. Microbiology, University of Virginia, Charlottesville, Virginia, 1981

B.S. Biology, College of William and Mary, Williamsburg, Virginia, 1976

Professional Experience

Consultant, Human DNA Identification and Paternity Testing, 2005-present

Consultant, Orchid Cellmark, Germantown, MD; Dallas, TX, 2005-present

Consultant, Applied Biosystems, Inc. 2006-present

Project Staff Associate, Northeast Regional Forensic Institute, Research Foundation of State University of New York, Albany, New York, 2006-2007

Senior Manager, Forensics and Laboratory Director, Orchid Cellmark, Germantown, Maryland, 2001 - 2005

Deputy Laboratory Director, Forensic Laboratory, Cellmark Diagnostics, Inc., Germantown, Maryland, 1997 - 2001

Senior Scientist, Cellmark Diagnostics, Inc., Germantown, Maryland, 1995 - 1997

Scientist, Cellmark Diagnostics, Inc., Germantown, Maryland, 1990 - 1995

Research Assistant Professor, Department of Cell Biology, University of New Mexico School of Medicine, Albuquerque, New Mexico, 1984 -1990

Research Fellow, Dr. Philip W. Tucker, Department of Microbiology University of Texas Southwestern Medical School, Dallas, Texas, 1981 - 1984

Graduate Research Student (Ph.D.), Dr. W. Michael Kuehl, Department of Microbiology, University of Virginia. Thesis Title: "Murine B Lymphomas: Models for Immunoglobulin Expression in B Cell Development.", 1976-1981

Sabbatical with Dr. Randolph Wall, University of California at Los Angeles
Molecular Biology Institute, Los Angeles, California, 1980

Participant, Histopathobiology of Cancer Workshop, Keystone, Colorado, 1979

Professional Associations

American Society of Human Genetics

American Academy of Forensic Sciences

Mid-Atlantic Cold Case Homicide Investigators Association (MACCHIA)

CE Users Group

Honors and Research Support

Grant Review for National Institutes of Justice, 2006-present.

Auditor for the National Forensic Science Technology Center, 2005 – present

Inspector for the American Society of Laboratory Directors/Laboratory Accreditation Board 2004 – 2005, 2010.

Editorial Board, The Journal of Forensic Sciences, 2004 – present

Guest Reviewer, The Journal of Forensic Sciences, 2002 – 2004

Member, Post-Conviction Issues Working Group of the National Commission on the Future of DNA Evidence, 1998-1999. Co-author of "Postconviction DNA Testing: Recommendations for Handling Requests" 1999, U.S. Department of Justice Office of Justice Programs.

United States Department of Defense, 1996-1998, Enhanced DNA Recovery, \$318,000.

NIH 1 RO1 HD20409. Immunoregulatory Factors in Human Colostrum. \$88,218 (direct). 07/01/87 – 06/30/90. Co-PI: S. Crago.

American Heart Association Grant-In-Aid 1985-1989, Regulation of B Cell Immunoglobulin Isotype by T Cells, \$99,000.

American Cancer Society Junior Faculty Research Award 1985-1988, Regulation of B Cell Immunoglobulin Isotype by T Cells, \$90,500.

Recipient of AAI travel award for 6th International Congress of Immunology, 1986.

Fellow, Damon Runyon –Walter Winchell Cancer Fund Award, 1982-1984.

Semi-Finalist, 1981 Distinguished Dissertation Award from the Council of Graduate Schools/University Microfilms International.

Publications

Word, C.J. and Kuehl, W.M. 1981. Expression of surface and secreted IgG_{2a} by a murine B lymphoma before and after hybridization to myeloma cells. *Mol. Immunol.* 18:311-322.

Rogers, J., Choi, E., Souza, L., Carter, C., Word, C., Kuehl, M., Eisenberg, D. and Wall, R. 1981. Gene segments encoding transmembranal carboxyl termini of immunoglobulin γ chains. *Cell* 26:19-27.

Word, C.J., Mushinski, J.F. and Tucker, P.W. 1983. The murine immunoglobulin α gene expresses multiple transcripts from a unique membrane exon. *EMBO J.* 2:887-898.

Jones, S., Chen, Y.-W., Isakson, P., Layton, J., Pure, E., Word, C., Krammer, P.H., Tucker, P.W. and Vitetta, E.S. 1983. Effect of T cell-derived lymphokines containing B cell differentiation factor(s) for IgG (BCDF γ) on γ -specific mRNA in murine B cells. *J. Immunol.* 131:3049-3051.

Vitetta, E.S., Brooks, K., Chen, Y.-W., Isakson, P., Jones, S., Layton, J., Mishra, G.C., Pure, E., Weiss, E., Word, C., Yuan, D., Tucker, P., Uhr, J.W. and Krammer, P.H. 1984. T cell-derived lymphokines inducing IgM and IgG secretion in activated murine B cells. *Immunol. Rev.* 78:137-157.

Wels, J., Word, C.J., Rimm, D., Der-Balan, G., Martinez, H.M., Tucker, P.W. and Blattner, F.R. 1984. Structural analysis of the murine IgG₃ constant region gene. *EMBO J.* 3:2041-2046.

White, M., Shen, A., Word, C., Tucker, P. and Blattner, F. 1985. Human Immunoglobulin D: Genomic sequence of the δ heavy chain. *Science* 228:733-737.

Chen, Y.-W., Word, C.J., Jones, S., Uhr, J.W., Tucker, P.W. and Vitetta, E.S. 1986. Double isotype production by a neoplastic B cell line: I. Cellular and biochemical characterization of a variant of BCL₁ that expresses and secretes both IgM and IgG₁. *J. Exp. Med.* 174:548-561.

Chen, Y.-W., Word, C.J., Dev, W., Uhr, J.W., Vitetta, E.S. and Tucker, P.W. 1986. Double isotype production by a neoplastic B cell line: II. Allelically excluded production of μ and $\gamma 1$ heavy chains without C_H gene rearrangement. *J. Exp. Med.* 164:562-579.

Word, C.J., Crago, S.S. and Tomasi, T.B. 1986. Regulation of IgA expression by isotype-specific T cells and soluble binding factors. *Ann. Rev. Microbiol.* 40:503-524.

Crago, S.S., Word, C.J. and Tomasi, T.B. 1987. Interaction of antisera to the secretory component with $Fc\alpha R$. In: *Recent Advances in Mucosal Immunology, Part A*. Eds. J. Mestecky, J.R. McGhee, J. Bienenstock, P. and L. Ogra. Plenum Publishing, NY, pp. 601-611.

Crago, S.S., Word, C.J. and Tomasi, T.B. 1989. Antisera to the secretory component recognizes the murine Fc receptor for IgA. *J. Immunol.* 142:3909-3912.

Word, C.J., White, M.B., Kuziel, W.A., Shen, A.L., Blattner, F.R. and Tucker, P.W. 1989. The immunoglobulin IgM-IgD heavy chain constant region locus in the human. I. Complete nucleotide sequence and structural analysis. *Int'l. Immunol.* 1:296-309.

Kuziel, W.A., Word, C.J., Mushinski, J.F., Blattner, F. and Tucker, P. 1989. The immunoglobulin IgM-IgD heavy chain constant region locus in the human. II. Regulation of expression during B cell differentiation. *Intl. Immunol.* 1:310-319.

White, M.B., Word, C.J., G-Humphries, C., Blattner, F.R. and Tucker, P. 1990. IgD switching can occur through homologous recombination in human B cells. *Mol. and Cell Biol.* 10:3690-3699.

Cotton, R.W., Forman, L., Word, C.J. 1991. Research on DNA typing validated in the literature. (Letter) *Am. J. Hum. Genet.* 49:898-899.

Walsh, D.J., Corey, A.C., Cotton, R.W., Forman, L., Herrin, G.L., Jr., Word, C.J., and Garner, D.D. 1992. Isolation of DNA from saliva and forensic samples containing saliva. *J. For. Sci.*, 37:387-395.

Word, C.J., 1994. Validation studies on the AmpliType[®] PM PCR Amplification and Typing Kit for forensic testing: Summary of results from 15 laboratories. *Proceedings from the Fifth International Symposium on Human Identification*. Promega Corp., pp. 123.

Word, C.J. 1995. Forensic casework analysis using STRs, DQ α , and PM in combination. *Proceedings from the Sixth International Symposium on Human Identification*. Promega Corp., pp. 32-35.

Word, C.J., Sawosik, T.M. and Bing, D.H. 1997. Summary of validation studies from twenty-six forensic laboratories in the United States and Canada on the use of the AmpliType® PM PCR Amplification and Typing Kit. *J. For. Sci.*, 42: 39-48.

Bing, D.H., Sawosik, T.M. and Word, C.J. 1997. Assay performance results with the AmpliType® PM PCR Amplification and Typing Kit on DNA mock casework, adjudicated/non-probative casework and proficiency panels from twenty-one forensic laboratories in the United States and Canada. *Crime Lab. Digest*, 23:3-21.

Zachary, A.A, Bias W.B. and Word, C.J. 1997. Principles and Applications of Genetic Identification. In *Manual of Clinical Laboratory Immunology*, 5th Ed., ASM Press, Washington, D.C. pp.1141-1151.

Word, C.J. 1998. STR data goes to court - A laboratory perspective. *Proceedings from the Eighth International Symposium on Human Identification*. Promega Corp., pp. 1-5.

Word, C. J. 1998. STR data goes to court - A laboratory perspective. *Profiles in DNA*, 2:7-8.

Word, C. J., Co-author as a member of the Postconviction Issues Working Group of the National Commission on the Future of DNA Evidence. 1999. *Postconviction DNA Testing: Recommendations for Handling Requests*. U.S. Department of Justice, National Institutes of Justice, Washington, D.C.

Smialek, J.E., Word, C.J., and Westveer, A.E. 2000. The Microscopic Slide - A Potential DNA Reservoir. *FBI Law Enforcement Bulletin*, 18-22.

Kokoszka, J.E., Cline, R. E., Leisy, C., Grossweiler, L. L., and Word, C. J. 2006. The Successful DNA Typing of Samples Following a Thermal Cycler Power Loss. *J. For. Sci.* 51:1074-1079.

Word, C. (2010) What is LCN?—Definitions and Challenges. *Profiles in DNA* 13(1); [Internet] 2010. Available from: www.promega.com/profiles/1301/1301_01.html

Presentations/Abstracts/Workshops

Word, C.J. and Kuehl, W.M. 1980. A murine B-lymphoma expresses surface and secreted IgG_{2a}. 62nd Annual Meeting Federation of American Societies for Experimental Biology.

Word, C.J., Mushinski, J.F., Slightom, J.L., Blattner, F.R. and Tucker, P.W. 1982. Membrane and secretory IgA. 66th Annual Meeting Federation of American Societies for Experimental Biology.

Word, C.J., Mushinski, J.F. and Tucker, P.W. 1983. The murine immunoglobulin α gene expresses multiple transcripts from a unique membrane exon. 12th Annual UCLA Symposium, Journal of Cellular Biochemistry.

Word, C.J., Mushinski, J.F., and Tucker, P.W. 1983. The murine immunoglobulin α gene expresses multiple transcripts from a unique membrane exon. 5th International Congress of Immunology.

Crago, S.S., Word, C.J., and Tomasi, T.B. 1986. Interaction of antisera to the secretory component with Fc α R. International Congress of Mucosal Immunology.

Chen, Y.-W., Word, C., Jones, S., Uhr, J.W., Tucker, P.W., and Vitetta, E.S. 1986. Biochemical and molecular characterization of an IgM/IgG₁-producing variant. 6th International Congress of Immunology.

Word, C.J., White, M.B., Shen, A.L., Kuziel, W.A., Blattner, F.R., and Tucker, P.W. 1986. DNA sequence and analysis of the human Ig C μ -C δ locus. 6th International Congress of Immunology.

Crago, S.S., Word, C.J., and Tomasi, T.B. 1986. Interaction of antisera to the secretory component with the IgA receptor (Fc α R) on murine lymphoid cells. 6th International Congress of Immunology.

Word, C.J., White, M.B., Shen, A.L., Kuziel, W.A., Blattner, F.R. and Tucker, P.W. 1986. DNA sequence and analysis of the human Ig C μ -C δ locus. Rocky Mountain Immunology Meeting.

Crago, S.S., Word, C.J., Tomasi, T.B. 1986. Interaction of antisera to the secretory component with the IgA receptor (Fc α R) on murine lymphoid cells. Rocky Mountain Immunology Meeting.

Crago, S., Word, C. and Tomasi, T.B. 1986. Anti-secretory component inhibits binding of IgA to Fc α R. 71st Annual Meeting Federation of American Societies for Experimental Biology.

Crago, S., Word, C.J. and Tomasi, T.B. 1987. Anti-secretory component inhibits binding of IgA to Fc α R. FASEB Summer Research Conferences on Fc Receptors and Immunoglobulin Binding Factors.

Word, C.J. - Presenter. 1990. Criminal Law and DNA, The Institute of Continuing Legal Education in Georgia. Atlanta, GA.

Word, C.J. - Presenter. 1990. California Association of Criminalist meeting, Long Beach, CA.

Kriss, J.E., Forman, L., Word, C.J., Garner, D.D. and Cotton, R.W. 1991. Factors affecting migration and resolution of DNA fragments. 43rd Annual Meeting of the American Academy of Forensic Sciences, Anaheim, CA.

Forman, L., Wadhams, M.J., Roby, R.K., Stacy, T.D., Word, C.J., Garner, D.D. and Cotton, R.W. 1991. Comparison of allele frequency distributions in four populations using probe YNH24. 43rd Annual Meeting of the American Academy of Forensic Sciences, Anaheim, CA.

Cotton, R.W., Kriss, J.E., Forman, L., Word, C.J. 1992. The effects of sample buffer composition on migration of DNA fragments. 44th Annual Meeting of the American Academy of Forensic Sciences, New Orleans, LA.

Forman, L., Roby, R.K., Wadhams, M.J., Stacy, T.D., Word, C.J., Garner, D.D. and Cotton, R.W. 1992. Effects on the calculation of frequencies from statistically-differentiated databases for multiple VNTR loci. 44th Annual Meeting of the American Academy of Forensic Sciences, New Orleans, LA.

Word, C.J., Cotton, R.W., Cooper, J.A., McCoy, M.J., Roby, R.K., Stacy, T.D., Walsh, D.J., Wadhams, M.J., Weber, M.A., Yates, P.J. and Forman, L. 1992. Use of single-locus and multilocus DNA probes in forensic paternity cases involving incestual relationships.

44th Annual Meeting of the American Academy of Forensic Sciences, New Orleans, LA.

Cotton, R.W., Forman, L. and Word, C.J. 1992. Minisatellite variant repeats (MVR's): Another layer of polymorphism in repeated DNA sequences. Third International Symposium on Human Identification, Scottsdale, AZ.

Cotton, R.W., Forman, L., Word, C.J. and Sozer, A.C. 1993. Minisatellite variant repeats and forensic analysis. 45th Annual Meeting of the American Academy of Forensic Sciences, Boston, MA.

Weber, M.A., Cotton, R.W., Forman, L., Garner, D.D. and Word, C.J. 1993. RFLP analysis of apparent partially restricted DNA samples from forensic casework. 45th Annual Meeting of the American Academy of Forensic Sciences, Boston, MA. and Northeast Association of Forensic Sciences 19th Annual Meeting, Springfield, MA.

Kriss, J., Corey, A.C., Cooper, J.A., Yates, P.J., Weber, M.A., Cotton, R.W., Garner, D.D. and Word, C.J. 1993. Validation Studies Using the HLA DQ α Forensic Kit. 45th Annual Meeting of the American Academy of Forensic Sciences, Boston, MA and the Northeast Association of Forensic Sciences 19th Annual Meeting, Springfield, MA.

Word, C.J., 1993. Case application and court experiences with PCR. Florida DNA Training Session II: PCR Applications. Orlando, FL.

Cotton, R.W., Kriss, J., Wadhams, M.J. and Word, C.J. 1993. Quantitation of human DNA. Fourth International Symposium on Human Identification, Scottsdale, AZ.

Word, C.J., Presenter - AmpliType Users Forum. 1994. 46th Annual Meeting of the American Academy of Forensic Sciences, San Antonio, TX.

Forman, L., Ballmann, R., Campbell, W., Cooper, J.A., Danielsen, L.A., Quandt, K.R., Ranadive, A., Stolorow, M.D., Weber, M.A., Word, C.J., and Yates, P.J. Proficiency testing and DNA profiling. 1994. 46th Annual Meeting of the American Academy of Forensic Sciences, San Antonio, TX.

Word, C.J., and Bing, D. 1994. Validation studies on the AmpliType[®] PM PCR Amplification and Typing Kit for forensic testing: Summary of results from 15 Laboratories. Fifth International Symposium on Human Identification, Scottsdale, AZ.

Cotton, R.W., Wadhams, M.J., Kriss, J., Sipes, D., Forman, L. and Word, C.J. 1994. Validation of two STR loci in preparation for casework implementation. Fifth International Symposium on Human Identification, Scottsdale, AZ.

Kriss, J., Forman, L., Cotton, R.W., and Word, C.J. 1995. Validation studies using the AmpliType[®] PM PCR Amplification and Typing Kit. 47th Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Cotton, R.W., Kriss, J., Sipes, D.E., Wadhams, M., Forman, L., and Word, C.J. 1995. Experimental validation of three STR loci for forensic casework. 47th Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Bing, D.H., and Word, C.J., et al. 1995. PCR based forensic testing with AmpliType[®] PM PCR Amplification and Typing Kit: The results of validation studies from forensic laboratories. 47th Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Word, C.J., Presenter. 1995. AmpliType Users Forum. 47th Ann. Mtg. Seattle, WA.

Word, C.J. 1995. Implementation of STR/AgNO₃ protocols on casework. Florida DNA Training Session III: Advanced PCR Applications. Altamonte Springs, FL.

Word, C.J., Cotton, R.W., Ranadive, A.A., and Weber, M.A. 1995. Forensic casework analysis using STRs, DQ α and PM in combination. Sixth International Symposium on Human Identification, Scottsdale, AZ.

Word, C.J. 1995. DNA Mid-Atlantic Association of Forensic Scientists Presents "The Gilbert and Trias Murders." Gaithersburg, MD.

Cotton, R.W., Chakraborty, R., Crouse, C., Forman, L., Kriss, J., Ranadive, A. A., Sipes, D.E., Weber, M.A., Weir, B., Word, C.J. 1996. Analysis of casework samples using a combination of the DQ α , PM, and 3 STR loci. 48th Annual Meeting of the American Academy of Forensic Sciences, Nashville, TN.

Word, C.J. 1996. DNA Interpretation Issues Workshop. Northwest Association of Forensic Sciences Meeting, Salt Lake City, UT.

Word, C.J. 1996. Interpretation of mixed samples. Human Identification Users Meeting. Rockville, MD.

Word, C.J. 1997. STR data goes to court - A laboratory perspective. Eighth International Symposium on Human Identification, Scottsdale, AZ.

Word, C.J. and Gregory, S.A. 1997. Optimization of recovery and PCR amplification of DNA from stamps and envelopes. Eighth International Meeting on Human Identification, Scottsdale, AZ.

Reynolds, J.E., Weber, M.A., Colombo, K., Swienton, A.R., Word, C.J., Yates, P.J., Cotton, R.W. 1997. DNA typing of the transfused individual. Am. J. Hum. Genet. 61(4):A1311; Poster presentation at the 47th Annual Meeting of the American Society of Human Genetics, Baltimore, MD.

Reynolds, J.E., Weber, M.A., Colombo, K.A., Swienton, A.R., Word, C.J., Yates, P.J., and Cotton, R.W. 1998. The effects of blood transfusion on RFLP and PCR DNA typing: Forensic casework examples. 50th Annual Meeting of the American Academy of Forensic Sciences, San Francisco, CA.

Word, C.J., Gregory, S.A., Reynolds, J.E., and Cotton, R.W., 1998. PCR amplification and overcoming inhibition of DNA recovered from adhesive surfaces. 50th Annual Meeting of the American Academy of Forensic Sciences, San Francisco, CA.

Word, C. J. 1998. DNA quantitation and PCR inhibition issues. Florida DNA Training Session IV: STRs - The Next Generation, Orlando, FL.

Grossweiler, L.L., Gee, M.A., Crance, K.A., Sipes, D.E., Word, C.J., and Reynolds, J.E. 2000. Successful DNA extraction from serum samples. 11th International Symposium on Human Identification, Biloxi, MS.

Maddox, L.O., Suit, B., Koch, K., Higgins, J., Word, C.J., and Cotton, R.W. 2000. Forensic use of Abacus OneStep ABACard[®] test for the identification of the p30 antigen. 11th International Symposium on Human Identification, Biloxi, MS.

Word, C.J., Danielsen, L.A., Reynolds, J.E., Maddox, L.O., and Cotton, R.W. 2000. Multiple-laboratory validation of fluorescent STRs using proficiency test results. 11th International Symposium on Human Identification, Biloxi, MS.

Word, C.J., Reynolds, J.E., Cotton, R.W., Grossweiler, L.L., Maddox, L.O. 2001. Solving old crimes with new DNA testing - contracting "cold" cases. 53rd Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA. (presented by Melissa B. Thompson)

Cotton, R.W., Word, C.J., Danielsen, L.A., Reynolds, J.E., and Maddox, L.O. 2001. Demonstration of general acceptance of STR data to the court. 53rd Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Cotton, R.W., Kriss, J.E., Colombo, K.A., Word, C.J., and Maddox, L.O. 2001. Defining alleles for four Y chromosomal markers without benefit of allelic ladders as part of Y chromosome validation studies. 53rd Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Maddox, L.O., Suit, B., Word, C.J., Cotton, R.W. 2001. Advantages of enhanced sensitivity of product gel staining using GelStarTM nucleic acid stain. 53rd Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Gee, M.A., Grossweiler, L.L., Crance, K.A., Sipes, D.E., Word, C.J., and Reynolds, J.E. 2001. Recovery of DNA from serum samples. 53rd Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Word, C.J. 2001. Panelist at Brooklyn Law School Symposium, DNA: Lessons from the Past, Problems for the Future, Brooklyn, NY.

Grgicak, C.M., Reynolds, J.E., Sipes, D.E., Rosier, L.R., Knickerbocker, C.J., Zimmerman, C.E., Shofkom, A.E., Befus, J.K., Cotton, R.W., Word, C.J. 2002. Relative sensitivity comparison between ABI fluorescent detection instruments using data from large scale no-suspect casework. 54th Annual Meeting of the American Academy of Forensic Sciences, Atlanta, GA.

Cline, R., Polhamus, C., Winebrenner, L., Leisy, C., Heller, A., Cicco, M., Grossweiler, L., Kokoszka, J. E., and Word, C. J. 2002. The night the lights went out in Germantown, An amplification study. 13th International Symposium on Human Identification, Phoenix, AZ.

Grgicak, C., Sipes, D.E., Grossweiler, L.L., Cotton, R.W., Word, C.J. 2003. Comparative Analysis of the DNA IQTM and QIAamp DNA[®] Extraction Kits for the Processing of Forensic Evidentiary Samples. 55th Annual Meeting of the American Academy of Forensic Sciences, Chicago, IL.

Grossweiler, L.L., Word, C.J., Maddox, L.O., 2003. Decision Branches for Testing of No Suspect Casework. 55th Annual Meeting of the American Academy of Forensic Sciences, Chicago, IL.

Word, C.J. Co-presenter 2005. Presenting DNA Evidence in Court. Sixteenth International Symposium on Human Identification, Dallas, TX

Word, C.J. 2006. Presented Workshop: Statistics in the Courtroom. 5th Annual Bode East Coast Advanced DNA Technology Workshop, Captiva Island, FL

Word, C.J. and Clarke, G. W. 2006. Presented Workshop: Courtroom Testimony: What You Need to Know. 17th Annual International Symposium on Human Identification, Nashville, TN

Word, C.J. and Dale, W. M. 2006. Quality Management System Concept and Tools "Mistakes Happen-What to do when it Happens to you & How to Prevent Them". 17th Annual International Symposium on Human Identification, Nashville, TN

Word, C.J. and Clarke, G. W. 2007. Presented Workshop: Expert Witness Testimony. 18th Annual International Symposium on Human Identification, Hollywood, CA.

Word, C.J. 2009. Presented Workshop: Expert Witness Testimony for New and Advanced DNA Analysts. Albany, NY

Word, C.J. 2009. What is LCN? Definitions and Challenges. 20th International Symposium on Human Identification, Las Vegas, NV

Word, C.J., Cotton, R.W., Grgicak, C., Butler, J. and Coble, M. 2010. Mixture Interpretation Workshop, San Antonio, TX

Seminars/Workshops

American Academy of Forensic Sciences Annual Meeting, Chicago, IL 2011

NIJ/OLES-funded Research Symposium, Office of Law Enforcement Standards, National Institutes of Standards and Technology, Gaithersburg, MD 2010

American Society of Human Genetics, 60th Annual meeting, Washington, DC 2010

21st International Symposium on Human Identification, San Antonio, TX 2010

American Society of Crime Laboratory Directors Meeting, Baltimore, MD 2010

15th National CODIS Conference, Reston, VA 2009

20th International Symposium on Human Identification, Las Vegas, NV 2009

Ethics Workshop, 20th International Symposium on Human Identification, Las Vegas, NV 2009

The NIJ Conference 2009, Crystal City, VA. 2009

14th National CODIS Conference, Crystal City, VA. 2008

19th International Symposium on Human Identification, Hollywood, CA. 2008

Ethics and Forensic Science Workshop, 19th International Symposium on Human Identification, Hollywood, CA. 2008

Troubleshooting Common Laboratory Problems Workshop, 19th International Symposium on Human Identification, Hollywood, CA. 2008

The NIJ Conference 2008; Criminal Justice Research, Development and Evaluation in the Social and Physical Sciences, Crystal City, VA. 2008

60th Annual Meeting of the American Academy of Forensic Sciences, Washington, DC 2008

Human DNA Quantification Using Real Time PCR Assays Workshop, 60th Annual Meeting of the American Academy of Forensic Sciences, Washington, DC 2008

DNA Mixture Interpretation: Principles and Practice in Component Deconvolution and Statistical Analysis Workshop, 60th Annual Meeting of the American Academy of Forensic Sciences, Washington, DC 2008

Eighteenth International Symposium on Human Identification, Hollywood, CA, 2007.

The NIJ Conference 2007; Forensic DNA: Tools, Technology, and Policy, Arlington, VA 2007

Grant Progress Assessment Training, Washington, D.C. 2007

HID 3130 Systems Training Program, Applied Biosystems, Rockville, MD 2007

Twelfth National CODIS Conference, Arlington, VA 2006

Seventeenth Annual International Symposium on Human Identification, Nashville, TN, 2006

5th Annual Bode East Coast Advanced DNA Technology Workshop, Captiva Island, FL, 2006

58th Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA, 2006

Eleventh National CODIS Conference, Crystal City, VA 2005

Sixteenth International Symposium on Human Identification, Dallas, TX, 2005

DNA Auditors Training Class, Quantico, VA, 2004

Tenth National CODIS Conference, Crystal City, VA, 2004

56th Annual Meeting of the American Academy of Forensic Sciences, Dallas, TX, 2004

American Prosecutors Research Institute National Conference: Justice Speaks, Crystal City, VA, 2003

Ninth National CODIS Conference, Lansdowne, VA, 2003

ASCLD/LAB Inspector's Training Class, Harrisburg, PA, 2003

Population Genetics Workshop, Taught by Dr. George Carmody, Rockville, MD, 2003

54th Annual Meeting of the American Academy of Forensic Sciences, Atlanta, GA, 2002

Y Chromosome Analysis and its Application to Forensic Casework Workshop, 54th Annual Meeting of the American Academy of Forensic Sciences, Atlanta, GA, 2002

Forensic Mitochondrial DNA Analysis: A Community Forum Workshop, 54th Annual Meeting of the American Academy of Forensic Sciences, Atlanta, GA, 2002

Statistics II — Forensic Mixture Interpretation & Analysis, Thirteenth International Symposium on Human Identification, Phoenix, AZ, 2002

Thirteenth International Symposium on Human Identification, Phoenix, AZ, 2002

Brooklyn Law School Symposium, DNA: Lessons from the Past, Problems from the Future, Brooklyn, NY, 2001

Twelfth International Symposium on Human Identification, Promega, Biloxi, MS, 2001

DNA Audit Class, Quantico, VA, 2000

52nd Annual Meeting of the American Academy of Forensic Sciences, Reno, NV, 2000

Fifth Annual Conference on the Future of DNA: Implications for the Criminal Justice System, New York, NY, 2000

Florida DNA Training Session V: DNA 2000, Miami Lakes, FL, 2000

Eleventh International Symposium on Human Identification, Promega, Biloxi, MS, 2000

Casework Guidelines and Complex Mixture Interpretation Workshop, Promega, Biloxi, MS, 2000

Statistics Workshop, Promega, Orlando, FL, 1999

Mitochondrial DNA Sequence Analysis in Forensic Casework Methods and Issues Workshop, Promega, Orlando, FL, 1999

Tenth International Symposium on Human Identification, Promega, Orlando, FL, 1999

50th Annual Meeting of the American Academy of Forensic Sciences, San Francisco, CA, 1998

Florida DNA Training Session IV: STRs - The Next Generation, Orlando, FL, 1998

Ninth International Symposium on Human Identification, Promega, Orlando, FL, 1998
49th Annual Meeting of the American Academy of Forensic Sciences, New York, NY, 1997

Eighth International Meeting on Human Identification, Promega, Scottsdale, AZ, 1997

A Workshop in Statistics for Forensic Scientists, St. Petersburg Junior College, St. Petersburg, FL, 1996

The Seventh International Symposium on Human Identification, Promega, Scottsdale, AZ, 1996

Northwest Association of Forensic Sciences, Salt Lake City, UT, 1996

Human Identification Users Meeting, Rockville, MD, 1996

47th Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA, 1995

Florida DNA Training Session III: Advanced PCR Applications, Altamonte Springs, FL, 1995

The Sixth International Symposium on Human Identification, Promega, Scottsdale, AZ, 1995

The Mid-Atlantic Association of Forensic Scientists Present "The Gilbert and Trias Murders," Gaithersburg, MD, 1995

46th Annual Meeting of the American Academy of Forensic Sciences, San Antonio, TX, 1994

The Fifth International Symposium on Human Identification, Promega, Scottsdale, AZ, 1994

BioEast '94 Workshop, Washington, D.C., 1994

45th Annual Meeting of the American Academy of Forensic Sciences, Boston, MA, 1993

The Second International Symposium on the Forensic Aspects of DNA Analysis, Quantico, VA, 1993

Florida DNA Training Session II: PCR Applications, Orlando, FL, 1993

The Fourth International Symposium on Human Identification, Promega, Scottsdale, AZ, 1993

44th Annual Meeting of the American Academy of Forensic Sciences, New Orleans, LA, 1992

The Third International Symposium on Human Identification, Promega, Scottsdale, AZ, 1992

AmpliType HLA DQ α Forensic DNA Amplification and Typing Workshop, 1992.

43rd Annual Meeting of the American Academy of Forensic Sciences, Anaheim, CA, 1991

The Second International Symposium on Human Identification, Promega, Madison, WI, 1991

Eighth International Congress of Human Genetics, Washington, D.C., 1991

Association of Biotechnology Companies, Washington, D.C., 1991

International Symposium on Continuous Cell Lines - An International Workshop on Current Issues, Bethesda, MD, 1991

The Institute of Continuing Legal Education in Georgia, Criminal Law and DNA meeting, Atlanta, GA, 1990

California Association of Criminalist Meeting, Long Beach, CA. (taught course), 1990

Revised March 2, 2011

Attachment 2

Curriculum Vitae

Robin W. Cotton, Ph.D.

Education

Ph.D. Molecular Biology and Biochemistry, University of California at Irvine, Irvine, California, 1980, Dissertation Title: Studies in Chromatin Structure

M.S. Biology, Southern Methodist University, Dallas, Texas, 1974

B.S. Biology, Southern Methodist University, Dallas, Texas, 1971

Professional Experience

Program Director: Biomedical Forensic Sciences and Associate Professor, Department of Anatomy and Neurobiology, Boston University School of Medicine, October 2006 to Present

Senior Director, Technical Forensic Science, Orchid Cellmark - November 2005 to August 2006

Laboratory Director and Technical Leader, Orchid Cellmark, Germantown, Maryland, 2001 – October 2005

Laboratory Director and Technical Leader, Forensic Laboratory, Cellmark Diagnostics, Germantown, Maryland, 1992 - 2001

Deputy Director, Cellmark Diagnostics, Germantown, Maryland, 1990 – 1992

Manager, Research and Development, Cellmark Diagnostics, Germantown, Maryland, 1988 - 1990

Guest Researcher, National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, Bethesda, Maryland, 1988 - 1990

Senior Staff Fellow, Section of Genetic Studies, National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, Bethesda, Maryland, 1983 - 1987

Postdoctoral Fellow, Laboratory of Dr. Roger Chalkley, Department of Biochemistry, College of Medicine, University of Iowa, Iowa City, Iowa, 1980 - 1983

Professional Associations and Committees

American Society of Human Genetics

American Academy of Forensic Sciences – Fellow

International Society for Forensics Genetics

ASCLD/LAB Board of Directors, Elected Position – November 2002- November 2006

ASCLD/LAB Volunteer Inspector, Legacy Program, 1995 –Present

ASCLD/LAB Board of Directors, Public member – October 2010 to present

Editorial Board, Journal of Forensic Sciences – May 2002-Present

Testimony Experience

Testimony provided in approximately 250 cases in approximately 35 States

Publications

Cotton, R.W., Manes, C. and Hamkalo, B.A. (1980) Electron Microscopic Analysis of RNA Transcription in Preimplantation Rabbit Embryos. *Chromosoma*. 79: 166-178.

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Walsh, D.J., Corey, A.C., Cotton, R.W., Forman, L., Herrin, G.L., Jr., Word, C.J. and Garner, D.D. (1992) Isolation of DNA from Saliva and Forensic Samples Containing Saliva. *J. For. Sci.*, Vol. 37, No. 2, p.387-395.

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Perlin, M.W., Kadane, J.B., and Cotton, R.W. (2009) Match Likelihood Ratio for Uncertain Genotypes. *Law, Probability and Risk*, Vol. 8, p. 289-302.

Grgicak, C.M., Urban, Z.M., and Cotton, R.W. (2010) Investigation of Reproducibility and Error Associated with qPCR Methods Using Quantifier® Duo DNA Quantification Kit. *J. For. Sci.*, Vol.55, No. 5, p. 1331-1339.

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Cotton, R.W. and Chalkley, R. (1984) Variations in Nucleosome Position on the 93bp Tandemly Repeated DNA from HTC Cells. *J. Cell Biol.* 99: 136a.

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Sheridan, K.T., Cotton, R.W., Herrin, G.L., Green, D.J. and Garner, D.D. (1989) Isolation of DNA From Forensic Samples and Removal of Contaminants Which Inhibit Restriction Enzyme Digestion. 41st Annual Meeting of the American Academy of Forensic Sciences, Las Vegas, NV.

Herrin, G.L., Cotton, R.W., Green, D.J. and Garner, D.D., (1989) Population Data Using the Jeffreys' Single-locus Probes. 41st Annual Meeting of the American Academy of Forensic Sciences, Las Vegas, NV.

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Forman, L., Kriss, J., Wadhams, M.J., Herrin, G.L., Cotton, R.W., Garner, D.D. (1990) VNTR Survey of Subdivided Populations: I) Amerindians & Finns. 42nd Annual Meeting of the American Academy of Forensic Sciences, Cincinnati, OH.

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Cotton, R.W., Forman, L., Word, C.J. and Sozer, A.C. (1993) Minisatellite Variant Repeats and Forensic Analysis. 45th Annual Meeting of the American Academy of Forensic Sciences, Boston, MA.

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Stacy, T.D., Meehan, B.W., Mason, J.M., and Cotton, R.W. (1994) Chemiluminescent Detection of Restriction Fragment Length Polymorphisms. 46th Annual Meeting of the American Academy of Forensic Sciences, San Antonio, TX.

Kriss, J., Forman, L., Cotton, R.W., and Word, C.J. (1995) Validation Studies Using the AmpliType PM PCR Amplification and Typing Kit. 47th, Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Cotton, R.W., Kriss, J., Sipes, D.E., Wadhams, M., Forman, L., and Word, C.J. (1995) Experimental Validation of Three STR Loci for Forensic Casework. 47th Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

Cotton, R.W., Chakraborty, R., Crouse, C., Forman, L., Kriss, J., Ranadive, A. A., Sipes, D.E., Weber, M.A., Weir, B., Word, C.J. (1996) Analysis of Casework Samples Using a Combination of the DQ α , PM, and 3 STR loci. 48th Annual Meeting of the American Academy of Forensic Sciences, Nashville, TN.

Reynolds, J.E., Weber, M.A., Colombo, K., Swienton, A.R., Word, C.J., Yates, P.J., and Cotton, R.W. DNA Typing of the Transfused Individual. (1997) Am. J. Hum. Genet. 61(4):A1311. The Amer. Soc. of Hum. Genet., 49th Ann. Mtg. Baltimore, MD.

Kriss, J., Ferguson, T., Sipes, D., Maddox, L., Cotton, R.W. (1999) Validation of the AmpF Φ STR Profiler Plus and COfiler Kits Using the ABI PRISM 310 Genetic Analyzer. Tenth International Symposium on Human Identification, Lake Buena Vista, FL.

Word, C.J., Danielsen, L.A., Reynolds, J.E., Maddox, L.O., and Cotton, R.W. (2000) Multiple-laboratory Validation of Fluorescent STRs Using Proficiency Test Results. 11th International Symposium on Human Identification, Biloxi, MS.

Cotton R.W., Word C.J., Danielsen L.A., Reynolds J.E., and Maddox L.O. (2001) Demonstration of General Acceptance of STR Data to the Court. 53rd Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

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Chromosome Validation Studies. 53rd Annual Meeting of the American Academy of Forensic Sciences, Seattle, WA.

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Grgicak, C.M., Reynolds, J.E., Sipes, D.E., Rosier, L.R., Knickerbocker, C.J., Zimmerman, C.E., Shofkom, A.E., Befus, J.K., Cotton, R.W., Word, C.J. (2002) Relative Sensitivity Comparison Between ABI Fluorescent Detection Instruments Using Data From Large Scale No-Suspect Casework. 54th Annual Meeting of the American Academy of Forensic Sciences, Atlanta, GA

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Cotton, R.W., Bethune, M. (2003) Quantitation and Characterization of Spectral Overlap Observed in Data Obtained From the 310 and 3100 Genetic Analyzers and the Use of These Data in Formulating Interpretation Guidelines. 55th Annual Meeting of the American Academy of Forensic Sciences, Chicago, IL

Grgicak, C., Sipes, D.E., Grossweiler, L.L., Cotton, R.W. (2003) Comparative Analysis of the DNA IQ™ and QIAamp DNA® Extraction Kits for the Processing of Forensic Evidentiary Samples. 55th Annual Meeting of the American Academy of Forensic Sciences, Chicago, IL

Cotton, R.W., Kahn, R., Word, C.J. (2006) Use of PCR Controls in Forensic DNA Laboratories: Standards, Practices and Limitations. 17th International Symposium on Human Identification, Nashville, TN.

Cotton, R.W., (2007) Clearly Unethical. Annual Meeting of the American Society of Crime Laboratory Directors.

Reviews

Cotton, R.W. and Goldman, D. (1988) Review of the Molecular Biology of the Human Alcohol Dehydrogenase Genes and Gene Products. *Advances in Alcohol and Substance Abuse*. Vol. 7 p.171-182.

Cotton, R.W., Anderson, M.B., Herrin, G.L., Jr., Corey, A.C., Sheridan, K.T., Tonelli, L.A., Waskowski, C.A. and Garner, D.D. (1989) Current Case Experience With Single-locus Hypervariable Probes. *Banbury Conference on DNA Technology and Forensic Science. DNA Technology and Forensic Sci. Banbury Report 32*. 191-206.

Cotton, R.W., Forman, L. and Word, C.J. (1992) MiniSatellite Variant Repeats (MVR's): Another Layer of Polymorphism in Repeated DNA Sequences. *Proceeding from the Third International Symposium on Human Identification, Scottsdale, AZ*.

Cotton, R.W. (1995) DNA Analysis and Maintaining Focus in an Extraordinary Case. *Proceedings from the Sixth International Symposium on Human Identification, Scottsdale, AZ*.

Attachment 3

ATTACHMENT 3

Table 1. DQA1 and PM test results.

Sample Name	PM					HLADQA1
	LDLR	GYPA	HBGG	D7S8	GC	DQA1
Possible types	AB	AB	ABC	AB	ABC	1.1, 1.3, 2.3, 4.1, 4.2/4.3
FI56382 Vaginal slide	AB	AB	AC	A	B	2, 4.2/4.3
FI56886/FI56884 [§] Non-sperm fraction Vaginal	AB	AB	AC	A	B	2, 4.2/4.3
FI56886/FI56884 [§] Sperm Fraction Vaginal	AB	AB	AC	A(B)	B (AC)	1.1, 2, 4.2/4.3*
FI56389 L. Boyd	AB	AB	AC	A	B	2, 4.2/4.3
FB68555 Kenneth Simmons	B	AB	AC	AB	AC	1.1, 1.2
Assumption set 1 – Types Included	All	All	AA, AC, CC	All	All	1.1, 1.1; 1.1, 1.2; 1.1, 2; 1.1, 4.2; 1.2, 1.2; 1.2, 2; 2, 2; 2, 4.2; 4.2, 4.2
Assumption set 1 – Types Excluded	None	None	BB, AB, BC	None	None	Any 1.3, 3, 4.1
Assumption set 2 – Types Included as 2 nd contributor	All	All	AA, AC, CC	AB, BB	AC	1.1, 1.1; 1.1, 1.2; 1.1, 2; 1.1, 4.2
Assumption set 2 – Types Excluded	None	None	BB, AB, BC	AA	AA, AB, BB, BC, CC	Anyone without 1.1

* indicates the 1.2 allele may be present (in a mixture)

§ same DQA1 and PM results for FI56884 (non-sperm and sperm)

Note: the alleles 4.2 and 4.3 cannot be distinguished with this assay and therefore the two types are reported together. For simplicity, only the 4.2 result is listed in the bottom part of the chart; wherever 4.2 is seen, it really means 4.2/4.3.

Assumption set 1: Mixture of DNA, no assumptions regarding contributors, no assumptions regarding presence of DNA from L. Boyd.

Assumption set 2: Mixture of DNA, assume only two contributors, and assume L. Boyd is a contributor. Therefore, all results not consistent with L. Boyd must be from the second contributor.

Table 2. Amelogenin and CTT Test Results

	Amelogenin	CTT [†]		
		CSF1PO	TPOX	TH01
Possible results	XX (female) XY (male)	7, 8, 9, 10, 11, 12, 13, 14, 15	6, 7, 8, 9, 10, 11, 12, 13	5, 6, 7, 8, 9, 10, 11
FI56382 Vaginal slide	ND	ND	ND	ND
FI56884 Non-sperm fraction Vaginal	NR	NR	NR	NR
FI5884 Sperm fraction Vaginal	ND	ND	ND	ND
FI56886 Non-sperm fraction Vaginal	X	10,12	9	8
FI56886 Sperm fraction Vaginal	X	10,12	9	8
FI56389 L. Boyd	ND	10,12	9	8
FB68555 Kenneth Simmons	ND	10,12	10,11	7,8

ND = Test not done

NR = No results

[†] The possible results listed for the CTT loci indicate the more common alleles that can be readily detected using the allelic ladder as a reference. Other more rare alleles with other designations do exist (see http://www.cstl.nist.gov/div831/strbase/var_tab.htm for a list of observed variant alleles).

Table 3. Frequency Calculations for the Sperm Fraction of the Vaginal Samples.

Kenneth Simmons v. South Carolina

FI56384 and FI56384 sperm fractions

		Assumption Set1	
		African American	Caucasian
HBGG	AA	0.257	0.221
	AC	0.301	0.007
	CC	0.088	0.000
		0.646	0.228
DQA1	1.1,1.1	0.014	0.015
	1.1,1.2	0.073	0.043
	1.1,2	0.023	0.029
	1.1,4	0.079	0.080
	1.2,1.2	0.099	0.031
	1.2,2	0.061	0.042
	1.2, 4	0.212	0.115
	2,2	0.009	0.014
	2,4	0.066	0.077
	4,4	0.114	0.108
		0.750	0.554
HBGG x DQA1		0.485	0.126
1 in ____			
individuals		2	8

		Assumption Set 2	
		African American	Caucasian
HBGG	AA	0.257	0.221
	AC	0.301	0.007
	CC	0.088	0.000
		0.646	0.228
D7S8	AB	0.474	0.474
	BB	0.149	0.148
		0.623	0.622
GC	AC	0.039	0.293
DQA1	1.1,1.1	0.014	0.015
	1.1,1.2	0.073	0.043
	1.1,2	0.023	0.029
	1.1,4	0.079	0.080
		0.189	0.167
product of 4 loci		0.00298	0.00692
1 in ____			
individuals		336	145

Allele Frequencies and Calculations Used for Table 3.

ALLELE FREQUENCIES									
	Locus	Allele	African American	Caucasian	Genotype	African American		Caucasian	
						2pq	p*p	2pq	p*p
Table 4	HBGG	A	0.507	0.470	AA		0.257		0.221
		C	0.297	0.007	AC	0.301		0.007	
					CC		0.088		0.000
Table 7	DQA1	1.1	0.117	0.122	1.1,1.1		0.014		0.015
		1.2	0.314	0.176	1.1,1.2	0.073		0.043	
		2	0.097	0.118	1.1,2	0.023		0.029	
		4	0.338	0.328	1.1,4	0.079		0.080	
					1.2,1.2		0.099		0.031
					1.2,2	0.061		0.042	
					1.2,4	0.212		0.115	
					2,2		0.009		0.014
					2,4	0.066		0.077	
					4,4		0.114		0.108
Table 4	GC	A	0.103	0.257	AC	0.039		0.293	
		C	0.190	0.571					
Table 4	D7S8	A	0.614	0.615	AB	0.474		0.474	
		B	0.386	0.385	BB		0.149		0.148

The genotype frequencies were calculated from the reported allele frequencies in the FBI J. of Forensic Sciences article relied upon by Lifecodes laboratory.

Attachment 4

ATTACHMENT 4.

Lifecodes Results Chart

015

ITEM	LDLR	GYPA	HBGG	D7S8	GC	HLA-DQA1	CSE1PO	TPOX	TH01
LILLY BELL BOYD BLOOD FI56389	A, B	A, B	A, C	A	B	2, 4.2/4.3			
KENNETH SIMMONS BLOOD FB68355-60	B	A, B	A, C	AB	AC	1.1, 1.2	10, 11	10, 11	7, 8
VAGINAL SWAB IN SALINE FROM MUSC - MALE FRACTION FI56384	A, B	A, B	A, C	A, (B)	B, (AC)	1.1, 2, * 4.2/4.3	10, 11	10, 11	7, 8
VAGINAL SWAB IN SALINE FROM MUSC - FEMALE FRACTION FI56384F	A, B	A, B	A, C	A	B	2 4.2, 4.3			
2 VAGINAL SWABS FROM SLED - MALE FRACTION FI56386	A, B	A, B	A, C	A, (B)	B, (AC)	1.1, 2, * 4.2/4.3	10, 11	10, 11	7, 8
2 VAGINAL SWABS FROM SLED - FEMALE FRACTION FI56386F	A, B	A, B	A, C	A	B	2, 4.2/4.3			

* indicates that a 1.2 allele may be present

() indicates allele of lesser intensity

Attachment 5

ATTACHMENT 5.

Corrected Lifecodes Results Chart

015

ITEM	LDLR	GYPA	HBGG	D7S8	GC	HLADOA1	CSF1PO	TPOX	TH01
LILLY BELL BOYD BLOOD FI56389	A, B	A, B	A, C	A	B	2, 4.2 / 4.3	10, 12	9	8
KENNETH SIMMONS BLOOD FB68555-60	B	A, B	A, C	AB	AC	1.1, 1.2	~~10, 11~~ 10, 12	10, 11	7, 8
VAGINAL SWAB IN SALINE FROM MUSC - MALE FRACTION FI56384	A, B	A, B	A, C	A, (B)	B, (AC)	1.1, 2, * 4.2 / 4.3	~~10, 11~~ Not done	~~10, 11~~ Not done	~~7, 8~~ Not done
VAGINAL SWAB IN SALINE FROM MUSC - FEMALE FRACTION FI56384F	A, B	A, B	A, C	A	B	2 4.2 / 4.3	No results	No results	No results
2 VAGINAL SWABS FROM SLED - MALE FRACTION FI56386	A, B	A, B	A, C	A, (B)	B, (AC)	1.1, 2, * 4.2 / 4.3	~~10, 11~~ 10, 12	~~10, 11~~ 9	~~7, 8~~ 8
2 VAGINAL SWABS FROM SLED - FEMALE FRACTION FI56386F	A, B	A, B	A, C	A	B	2, 4.2 / 4.3	10, 12	9	8

STATE OF SOUTH CAROLINA	)	IN THE COURT OF COMMON PLEAS
	)	
COUNTY OF DORCHESTER	)	Case No.: 05-CP-18-1368
	)	
KENNETH SIMMONS	)	
<i>Applicant,</i>	)	
	)	MEMORANDUM IN SUPPORT
v.	)	
	)	OF REPLY AFFIDAVIT
STATE OF SOUTH CAROLINA	)	
<i>Respondent.</i>	)	

INTRODUCTION

Applicant, Kenneth Simmons, has filed a PCR Application before this Court which alleges that the DNA evidence offered against him at his 1999 capital trial was, in several respects, false, misleading, incomplete and incorrect ("the DNA claim"). In support of his DNA claim, Applicant presented the testimony of Dr. Steven Lambert at his PCR hearing over thirteen months ago. Since Dr. Lambert testified, the factual basis of the DNA claim has developed substantially through the deposition testimony of the two DNA witnesses who testified at Applicant's trial – Dr. Michael Baird and Ms. Lauren Crane.

Applicant has also filed and served notice of his intent to offer the reply affidavit of Drs. Charlotte Word and Robin Cotton. *See Notice of Intent to Rely on the Affidavit of Dr. Charlotte Word & Dr. Robin Cotton As Evidence in Reply, filed concurrently with this memorandum.*¹ In order to give context to and explain the purpose of the Reply Affidavit of Drs. Charlotte Word and Robin Cotton, Applicant submits the following memorandum.

¹ Applicant seeks to rely on this affidavit as direct testimony, in accordance with S.C. Code § 17-27-80 and *Simpson v. Moore*, 367 S.C. 587, 607-08, 627 S.E.2d 701, 712 (2006). However, if the Court prefers live testimony, Dr. Word and Dr. Cotton can be available by telephone or in person, with appropriate funding for travel expenses.

RELEVANT FACTS

The victim in this case, Ms. Lilly Bell Boyd, was an elderly African-American woman who lived alone. She was last seen alive in her yard on Saturday, August 31, 1996, at approximately 3:30 p.m. She was found murdered in her home the following Sunday afternoon. She had been beaten, strangled, and sexually assaulted. The Summerville Police Department actively investigated the case for a year, but failed to solve the crime. In August of 1997, the State Law Enforcement Division ("SLED") formed a task force to solve the case. The task force requested a suspect profile and then rounded up men from the neighborhood who fit that description: Black male; approximate age 25 or younger, but may be older if mentally retarded or had been drinking or using drugs; poor; low education; most likely single or if married having marital problems; uses alcohol and/or drugs; lives alone or with parent(s) or with an older female relative.

Applicant generally matches this profile. A task force member suggested Applicant as a potential suspect in October of 1997. One month later, Applicant was arrested for shoplifting two steaks from a grocery store in Columbia and held there until he was questioned by task force members. From December 2-9, 1997, Summerville police detectives and/or SLED agents interrogated Applicant six times. During these interrogations, Applicant gave several incriminating statements and ultimately confessed to the rape and murder of Ms. Boyd. Many of Applicant's statements are inconsistent, contradictory, do not correspond to any actual evidence, and/or are implausible. *See Applicant's PCR Exhibit #2, Affidavit of Dr. Richard Leo at ¶ 18.*²

² For example, Applicant was first interrogated by Detective Everett Howard for approximately 1 ½ to 2 hours. At that time he gave a statement saying that a woman named Brenda Stevenson had paid two men to kill someone named Shorty. The next day, Detective Howard interrogated Applicant a second time, again for approximately 1 ½ to 2 hours. At the conclusion of this

In addition to Applicant's statements, the state relied heavily on DNA evidence. In fact, these two pieces of evidence constituted the entirety of the state's case for guilt. The solicitor told the jury in his opening statement:

The state's case consists basically of Kenneth Simmons' confession, statements that are on tape that he gave Kenny Mears. And it also consists of DNA evidence. You'll also hear that an effort was made at the crime scene to take fingerprints, to identify footprints and that kind of thing. And there will be no fingerprint evidence that matches up with Kenneth Simmons. There will be

interrogation, Applicant confessed to killing the person named Shorty. During a third interrogation, Applicant confessed to a murder in Traveler's Rest, South Carolina. All of these stories were later determined to be fictional. *Id. at* ¶ 19.

Dr. Richard Leo, an expert in false confessions, explained in his affidavit that the detectives and agents who elicited Applicant's statements never recorded the entirety of his interrogations, but in some instances they recorded the "recap" or conclusion of the interrogation. Thus, there is no objective record of what transpired during most of Applicant's multiple interrogations, no record of what interrogation techniques were used and led him to make multiple changing confessions, and no record of most of what Applicant told the various interrogators throughout his various accounts. *Id. at* ¶ 18.

Dr. Leo identified several situational reasons in this case to doubt the reliability of Applicant's statements. *See id. at* ¶¶ 27-32. Moreover, Dr. Leo noted that Applicant possesses many individual risk factors common in false confession cases, including:

- (1) repeated testing has established that he is mentally retarded with a full scale IQ in the mid to high 60s.
- (2) he has many personality traits that are consistent with mental retardation, including that he is eager to please, easily led, and submissive.
- (3) he has memory problems, a history of blackouts, and diminished intellectual capacity.
- (4) the mentally handicapped and cognitively impaired tend to be highly submissive, compliant, suggestible, and unable to withstand high levels of stress or conflict. For these reasons, it is not surprising that the mentally handicapped are disproportionately represented in the reported false confession cases.

Id. at ¶ 24.

no footwear that matches up with him. We're looking at confessions and DNA.

Trial Transcript at p. 1042.

I. THE STATE'S DNA EVIDENCE AT TRIAL

The state presented testimony from two experts from Lifecodes Corporation – Ms. Lauren Crane and Dr. Michael Baird. Lifecodes was a private, for-profit biotechnology company located in Stamford, Connecticut.

A. TRIAL TESTIMONY OF MS. LAUREN CRANE

Ms. Crane was employed at Lifecodes as a forensic scientist. She testified that she analyzed vaginal swabs taken from the body of Ms. Lily Bell Boyd and found that they contained a mixture of sperm as well as the victim's own DNA. *Trial Transcript at pp. 1460-61.* Although Ms. Crane attempted to separate the sperm from the other cells contained in the vaginal swabs, she was not able to separate them, leaving a mixture of DNA. *Id. at 1467-68.* Finally, Ms. Crane testified that she received a known sample of Applicant's blood and compared it to the mixture of DNA found on the vaginal swabs. She stated that Applicant's blood was tested at nine (9) different locations, using a method known as "PCR" testing, and the result was that he could not be excluded as a contributor to the mixture of DNA taken from the vaginal swabs. *Id. at 1470-71.*

The state introduced a chart, labeled state's Exhibit Number 24, during Ms. Crane's testimony:

Q: Now, have you previously reviewed a chart which was a combination of charts you prepared to show the results of your DNA analysis?

A: Not recently; No.

Q: Let me hand you what's been marked as state's exhibit number 24. I'll give you a minute to look at that. (Witness reviews document).

A: Okay.

Q: Okay. Would that chart be of assistance to you in explaining to the jurors the results of your PCR analysis?

A: Yes.

*Id. at 1464.*³ Ms. Crane and the solicitor then discussed each line of the chart in detail. *Id. at 1464-70.* The chart, as it appeared before the jury, looked like this:

³ This chart has also been entered into the PCR record as Applicant's PCR Exhibit Number 16.

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ITEM	LDLR	GYPA	HBGG	D7S8	GC	HLA DQA1	CSE1PO	TPOX	TH01
LILLY BELL BOYD BLOOD FI56389	A, B	A, B	A, C	A	B	2, 4.2 / 4.3			
KENNETH SIMMONS BLOOD FB68555-60	B	A, B	A, C	AB	AC	1.1, 1.2	10, 11	10, 11	7, 8
VAGINAL SWAB IN SALINE FROM MUSC - MALE FRACTION FI56384	A, B	A, B	A, C	A, (B)	B, (AC)	1.1, 2, * 4.2 / 4.3	10, 11	10, 11	7, 8
VAGINAL SWAB IN SALINE FROM MUSC - FEMALE FRACTION FI56384F	A, B	A, B	A, C	A	B	2 4.2, 4.3			
2 VAGINAL SWABS FROM SLED - MALE FRACTION FI56386	A, B	A, B	A, C	A, (B)	B, (AC)	1.1, 2, * 4.2 / 4.3	10, 11	10, 11	7, 8
2 VAGINAL SWABS FROM SLED - FEMALE FRACTION FI56386F	A, B	A, B	A, C	A	B	2, 4.2 / 4.3			

* indicates that a 1.2 allele may be present

() indicates allele of lesser intensity

The nine genetic locations to which Ms. Crane referred are depicted on state's Exhibit Number 24. The first six locations are tested by the DQ Alpha Polymarker kit (hereafter referred to as "DQA1/PM"), which tests for six genetic locations (named LDLR, GYPA, HBGG, D7S8, GC, and HLADQA1). The last three locations are tested by a single test known as CTT (to represent the three genetic locations it identifies: CSF1PO, TPOX and THO1). After walking the jury through each line of this chart, Ms. Crane stated that Applicant's DNA was not excluded as a contributor at nine out of nine tested locations:

Q: All right. Would you state whether or not, Mrs. Crane, based on these tests that you've done that are reflected on that chart, whether the DNA profile for the male fraction of the vaginal swabs that was taken from Lilly Bell Boyd's autopsy by Dr. Nichols was identical to the DNA profile on Kenneth Simmons' blood in *all nine loci or locations there?*

A: Basically what we found was a mixture of DNA which we could not eliminate Kenneth Simmons' blood as being a contributor to.

Id. at 1470-71.

B. TRIAL TESTIMONY OF DR. MICHAEL BAIRD

Dr. Michael Baird was Ms. Crane's supervisor. To explain the significance of Ms. Crane's results, Dr. Baird testified to his statistical calculations. First, Dr. Baird told the jury what it means for a DNA "match" to occur:

Q: When does the DNA match occur?

A: The match or non-match really is what is declared at the end of the testing. And if the DNA profile that you generate from an evidentiary sample is indistinguishable from the DNA profile of a known sample, it means that the DNA could have originated from the person whom the known sample came from.

Trial Transcript at pp. 1451-52. Next, Dr. Baird testified that he had reviewed Ms. Crane's work, that she had done everything properly, and that everything on State's Exhibit Number 24 was consistent with Applicant being a contributor to the evidentiary sample. *Id. at 1474-75.*

Then, he explained that the next step was to conduct a statistical analysis:

The next step that is done is to review all the work that's done in the case . . . determine whether or not the match or mixture is there in the way that it appears to be or that each one of us has seen individually. And if that is confirmed, I then go through and do a statistical analysis to determine the frequency of occurrence that a particular profile would be present in population.

Id. at 1475. Specifically, Dr. Baird testified to the following statistical calculations:

Q: What percentage of the Caucasian population would be excluded as the donor of that semen in the male fragment of the vaginal swab taken at Lilly Bell Boyd's autopsy?

A: Well, virtually all of the Caucasian population would be excluded as contributing. We generally represent this frequency as a number, not a percentage. So the frequency of occurrence really represents how often you would see that particular combined profile in the Caucasian population, which is ***one in over one billion two hundred eighty million, two hundred forty-nine thousand nine hundred and sixteen.***

Q: All right, sir. If you'd get the chart for the Black data base, please. Dr. Baird, using that chart, please explain the probability of a randomly chosen person unrelated to Kenneth Simmons having that same genetic profile, the genetic profile found in the semen on this chart, the vaginal swabs taken from the autopsy.

A: There are nine different [genetic] tests done in this case. In the Black population it's about ***one in eight million people.*** In other words, one person in eight million would have that profile that we see in Mr. Simmons.

Q: All right. And you also see that same profile in the male fragment of the vaginal swab?

A: Right; in the vaginal swab is a DNA profile consistent with Mr. Simmons being a contributor as well as the victim.

Trial Transcript at pp. 1480-82.

II. THE STATE'S DNA EVIDENCE WAS FALSE

Faced with this evidence at trial, there can be no dispute that the jury believed the DNA evidence conclusively identified Applicant as the source of the semen in the evidentiary sample. Boiled down, the state's experts testified that Applicant's DNA "matched" the evidence from the crime scene at nine out of nine locations, and that the statistical probability of someone other than Applicant having contributed to this sample was 1 out of more than a billion Caucasians and 1 out of 8 million African-Americans. *This testimony was false.*

A careful review of the underlying materials in this case has unmasked a large number of problems in Lifecodes' testing and reporting procedures and in the trial testimony of Ms. Crane and Dr. Baird. To simplify matters as much as possible, this brief discusses these problems in three general categories: (1) The state's trial Exhibit Number 24; (2) Dr. Baird's statistical calculations; and, (3) questions about reliability. Ms. Crane and Dr. Baird have now testified and been cross-examined in depositions for this case. For the most part, they have not disputed Applicant's factual claims. Indeed, *Ms. Crane and Dr. Baird have both admitted that they did exactly what Applicant has alleged.* Thus, each sub-category below includes a section explaining the deposition testimony of Ms. Crane and Dr. Baird and sets forth their admissions regarding each issue.

A. STATE'S TRIAL EXHIBIT NUMBER 24

i. This Exhibit Contains Fabricated Data Regarding the CTT Results.

Ms. Crane and Dr. Baird both testified that Applicant's DNA was consistent with the evidentiary sample at nine out of nine tested genetic locations. *Trial Transcript at pp. 1470-71*

and pp. 1481-82. State's Exhibit Number 24 represented to the jury that Lifecodes obtained CTT test results from Applicant's known blood standard that were exactly the same as results obtained on two separate vaginal swabs taken from the victim's body (sample number F156384 and sample number F156386). No CTT results were listed on the exhibit for the victim's known standard and Lifecodes never reported having tested the victim's known standard with the CTT test.

With regard to sample number F156384, both Ms. Crane and Dr. Baird have now admitted that a CTT test was never conducted on this sample because the sample was consumed before any CTT testing could be performed. *See Baird Depo. at p.16-17 and 26-27; Crane Depo. at p.13* ("There was no more of that DNA sample left to do any further amplifications. We had exhausted that sample for all the previous DNA analysis we had attempted). Lifecodes' lab notes also indicate that sample number F156384 was completely exhausted before the CTT testing even began. *See Applicant's PCR Exhibit 9 at p.150 (lab record dated 1/15/1998; "Note: No Sample 56384 left")*.

Lifecodes did complete a CTT test on sample number F156386. However, the lab never formally reported that it had tested this sample or that it had tested the victim's known blood standard with the CTT test. *See Crane Depo. at p. 43 and 45-46*. The first and only time that the lab reported any CTT results for sample number F156386 was when the lab produced Exhibit Number 24 at trial. The CTT results reported on state's Exhibit Number 24, however, are completely false. The exhibit represented to the jury that CTT results for this evidentiary sample were the same as those obtained from Applicant's known blood sample. In fact, the results that Lifecodes obtained from sample number F156386 **do not match Applicant's DNA**. *Crane Depo*

at pp. 22-25; 27-31; 36-40; 58-60. The CTT results from this sample are consistent with the victim's DNA alone.

Thus, Exhibit Number 24 contains data that are completely unsupported by the laboratory's notes and reported results. There are no records in this case that would support including Applicant as a potential contributor to the CTT results from the evidentiary samples taken from the victim's body. That is, the data presented to the jury at trial regarding the CTT tests were simply fabricated. The exhibit, when corrected, looks like this:

<u>ITEM</u>	<u>LDLR</u>	<u>GYPA</u>	<u>HBGG</u>	<u>D7S8</u>	<u>GC</u>	<u>HLADQA1</u>	<u>CSFIPO</u>	<u>TPOX</u>	<u>THO1</u>
LILLY BELL BOYD BLOOD FI56389	A, B	A, B	A, C	A	B	2, 4.2/4.3	10,12	9	8
KENNETH SIMMONS BLOOD FB68555-60	B	A, B	A, C	AB	AC	1.1, 1.2	~~10, 11~~ 10, 12	10, 11	7, 8
VAGINAL SWAB IN SALINE FROM MUSC - MALE FRACTION FI56384	A, B	A, B	A, C	A, (B)	B, (AC)	1.1, 2, * 4.2/4.3	~~10, 11~~ Not done	~~10, 11~~ Not done	~~7, 8~~ Not done
VAGINAL SWAB IN SALINE FROM MUSC - FEMALE FRACTION FI56384F	A, B	A, B	A, C	A	B	2 4.2/4.3	No results	No results	No results
2 VAGINAL SWABS FROM SLED - MALE FRACTION FI56386	A, B	A, B	A, C	A, (B)	B, (AC)	1.1, 2, * 4.2/4.3	~~10, 11~~ 10, 12	~~10, 11~~ 9	~~7, 8~~ 8
2 VAGINAL SWABS FROM SLED - FEMALE FRACTION FI56386F	A, B	A, B	A, C	A	B	2, 4.2/4.3	10, 12	9	8

ii. **Deposition Testimony of Dr. Baird and Lauren Crane.**

Dr. Michael Baird was deposed on September 24, 2010. With regard to state's Exhibit Number 24, he testified that some things on the exhibit appeared to be incorrect, that he hoped Ms. Lauren Crane would have a better recollection about those matters, and that he had no idea how that information got onto the exhibit:

Q: The next line down would be the vaginal swab in saline from MUSC, male fraction F156384?

A: Yes. I see that.

Q: And it has CTT results listed for it as well?

A: Correct.

Q: If I refer you back to the lab page that was dated on January the 15th, 1998.

A: Yes.

Q: -- if we assume that this is 56384, where it says "no sample left" --

A: Correct.

Q: -- does it appear that that sample was ever tested and that there were any results on any CTT testing for that sample?

A: It doesn't appear to be. I don't know that for sure, and, again, hopefully, Lauren Crane would have a recollection of that. There's certainly nothing in the reports that were generated, and I don't see anything in terms of gel results from it either.

Q: As a matter of fact, the one gel result that we do have that has that evidence number listed there are no results for?

A: Correct.

Q: Do you know how these numbers got onto this chart?

A: I don't know.

Q: Do you know who prepared this chart?

A: That I don't know either.

Q: Do you know if this chart was shown to the jury?

A: I don't know.

Deposition of Dr. Baird at pp.26-27.

Ms. Lauren Crane, however, testified in her deposition on November 29, 2010, that Dr. Baird prepared state's Exhibit Number 24 in preparation for trial, that the CTT information on the exhibit was incorrect, and that she had never previously viewed the exhibit prior to her testimony at trial.

Q: Did you prepare this chart?

A: No.

Q: Do you have reason to believe who likely prepared this chart?

A: I believe it was Mike Baird in preparation for trial.

...

Q: It seems to me that you testified about this chart as State's Exhibit Number 24 for the State.

A: And at the beginning of my testimony I was asked if I had previously reviewed the chart that as a combination prepared to show the results, and my answer was, no, not – not recently, no. So the first time I saw that chart was when we were in court.

Q: All right. You said, "Not recently, no."

A: Right. And then he said, "Let me hand you the report."

Q: "Would that chart be of assistance to you in explaining to the jury the results of your PCR analysis?"

A: Right, because it had the types that were listed there.

...

Q: And the numbers that you said were "10,11"?

A: Right. Reading it from the chart, not looking at the gel and not having seen this chart before. Assuming that this chart was prepared by Mike and it was correct. I stated I had not seen this chart before that moment.

Q: Well, you said you hadn't seen it recently. You mean you had never seen it prior to it being shown at trial?

A: I had not seen that chart that they prepared for the court, no.

Q: Okay. So when you said that your findings were at 10,11, you were just reading off the chart, assuming the chart was correct. In actuality, the chart was incorrect?

A: Correct.

Crane Depo at p.14 and pp.18-21.

The only official report that Lifecodes issued in this case regarding its CTT testing was a report showing the CTT results from Applicant's *known* blood standard.⁴ The lab did not issue a report explaining its results for any CTT tests run on the victim's known standard or on the evidentiary samples taken from the victim's body. In her deposition, Ms. Crane explained that she did not issue any such report because she considered all of the CTT testing to be *inconclusive* and *she did not rely on those results in any way*:

⁴ See *State's PCR Exhibit 2*, Lifecodes Report dated 2/2/1998, reporting CTT results for Applicant's known blood sample.

Q: I was asking you about -- a couple of follow-up questions about the January 29th CTT test.

A: Right.

Q: Mr. Simmons' profile was run in that test?

A: Correct.

...

Q: There was an evidentiary sample, specifically the [F156386] sample was run in that test, too?

A: Right.

Q: You did not reflect any values for the [F156386] sample in your report?

A: Right.

Q: Why not?

A: There was no, in my opinion, conclusive result that I could generate that I felt was conclusive with the CTT result. Therefore, there was no official report that was generated. And the subsequent report was prepared, you know, at the time of trial.

Q: So -- okay. And I'm going to ask you specifically with regard to the other sample that was run at that time was [F156389], which was Ms. Boyd's known sample.

A: Correct.

Q: Your report didn't reflect any values for that sample either?

A: Correct.

Q: And the reason that that -- results for that sample weren't included were what?

A: Were the same. We made no official report for the CTT results.

Q: If you made no official report for the CTT results, what evidentiary value to they have --

A: I don't know.

Q: -- with regard to Mr. Simmons' case?

A: I don't know. I would say that based on the results I'm seeing and based on the fact that I have no conclusive report from that, that those results were inconclusive.

Q: So basically for comparison purposes to determine whether or not Mr. Simmons is or is not a contributor to the evidentiary samples in this case, you would not include any of the CTT results?

A: Correct.

Crane Depo at pp.44-46.

But the jury was never told that the CTT results were inconclusive or that they lacked any evidentiary value relevant to Applicant's case. On the contrary, both experts testified that Applicant's DNA was consistent with the evidentiary samples at all nine locations, and they presented an exhibit purporting to show that Applicant's DNA matched the evidentiary samples at all nine locations, including those tested by CTT.⁵ Ms. Crane has admitted that she falsely

⁵ This solicitor emphasized this point in his opening and closing statements. In his opening statement, the solicitor told the jury that the State's witnesses would testify that

nine out of nine locations on DNA molecules that they compared with the semen in that vaginal swab matched the DNA from Kenneth Simmons' blood. And there will be testimony about the statistical significance of that DNA match.

Trial Transcript at p. 1041. In closing, the solicitor said:

DNA is never going to be able to tell you with one hundred percent certainty this is the person who's semen is found here based on DNA match because they can't possibly look at each DNA allele. **They did nine of them in this particular case.** All they can do is

testified regarding this point. *See Crane Depo at p.47* (“Q: Now, you didn’t explain [to the jury] that you were just relying on the DQ Alpha and polymarker results, not all nine loci? A: Correct.”).

The jury would have no way of knowing that the information on state’s Exhibit Number 24, and the expert testimony explaining it, was false.⁶ Likewise, Applicant’s defense counsel was never told that the CTT results from the evidentiary samples did not match Applicant’s DNA. State’s Exhibit Number 24 was the first and only time that the lab reported any CTT results for the evidentiary samples, and the exhibit falsely represented that Applicant’s DNA and the evidentiary samples were a “match.” Lifecodes’ reporting and trial presentation regarding its CTT testing was false, and Ms. Crane has admitted that it was false.

B. DR. BAIRD’S STATISTICAL CALCULATIONS

i. Dr. Baird’s Trial Testimony Was False, Misleading and Incorrect

Dr. Baird performed his statistical analysis by calculating the frequency of Applicant’s *known* alleles at all nine of the DQA1/PM and CTT genetic locations. As explained above, it was error for Dr. Baird to include the CTT locations at all since, as Ms. Crane recently testified,

say whether or not a person is excluded from that DNA profile or not excluded. Then they can do statistical probabilities of how often that particular profile exists in the population. And that’s what these people testified to.

Trial Transcript at p. 2005.

⁶ *See Reply Affidavit of Drs. Word and Cotton at ¶ 39* (the exhibit “should never have been presented to the jury during the trial. It is also our opinion that the experts should not have relied on this table in any way to aid their presentation. The table is factually wrong and can only be misleading to the trier-of-fact. . . . It is our opinion that there is absolutely no possible way, based on the testimony of the two DNA witnesses, that the jury could have had any indication that the data were inaccurately displayed in this exhibit”).

the CTT results do not tell us anything about whether or not Applicant is included or excluded as a possible contributor to the evidentiary sample.⁷ But the bigger problem is that Dr. Baird used the frequency of Applicant's *known genetic profile*.

Applicant does not dispute that his genetic profile is "included" as a potential contributor to the evidentiary sample by the DQA1/PM results. However, Dr. Baird's statistical calculations inappropriately fail to account for the fact that *countless other people, apart from Applicant, would also be "included" in these results*. In order for the jury to properly assess the weight of the DNA evidence in this case, they must know the likelihood that Applicant's "inclusion" could arise by chance or coincidence. Thus, the relevant statistical question in this case is "*what is the statistical probability of randomly selecting some other person, other than Applicant himself, whose DNA would likewise not be excluded as a potential contributor to the evidentiary sample*"? Performing the calculation necessary to answer this question is sometimes called conducting "mixture statistics." That is not the calculation that Dr. Baird performed. Instead, Dr. Baird testified to what are known as "single source statistics." In other words, Dr. Baird calculated *the statistical probability of randomly selecting some other person in the world, other than Applicant himself, whose DNA is identical to Applicant's (i.e., his genetic twin)*. This calculation bears no relation to and does not speak to the evidentiary weight of the evidence in this case. Throughout his deposition, Dr. Baird repeatedly acknowledged this fact:

⁷ Again, the CTT results that Lifecodes obtained from the evidentiary samples were consistent with the victim's known blood sample only. In other words, the CTT results from the evidentiary samples do not appear to show a mixture of DNA at all. Rather, only the victim's DNA is evident. As Drs. Word and Cotton explain in their affidavit, this raises some concerns about reliability, since the CTT tests were performed on the same samples that were examined with the DQA1/PM test, which appeared to show a mixture of DNA. Given that the DQA1/PM results appeared to show a mixture, "it is expected that DNA from a second individual should have been detected with the CTT testing of the same DNA." *Reply Affidavit of Drs. Word and Cotton at ¶ 32*. This raises the possibility of testing error. See Section C, below.

Q: This frequency [that Dr. Baird testified to at trial] is not the frequency of possible contributors to the unknown sample?

A: That's correct. That's just the frequency of the profile from the suspect in this case.

Baird Depo at pp. 14-15.

A: We got that number by calculating the frequency of occurrence of Mr. Simmons' profile at those genetic markers.

Q: That's Mr. Simmons' profile, not the evidentiary sample. That's not reflective of all of the alleles that you see in the unknown sample?

A: That's correct.

Baird Depo at p.31.

Q: There are other profiles that could have contributed to the [evidentiary/unknown sample]?

A: Correct.

Q: And you did not include any of those possibilities in your statistical calculation?

A: Correct. I did not do a mixture calculation. I performed a calculation for the frequency of occurrence of a single source.

Q: [Y]ou didn't just take Mr. Simmons' known and calculate the frequency of that genotype, or is that what you did?

A: That is what I did.

Baird Depo at p.40.

The following table shows how Dr. Baird calculated his "single source" statistics and how an appropriate "mixture calculation" should have been done.⁸

SAMPLE	GENETIC LOCUS									Overall Frequency
	LDLR	GYP A	HBGG	D7S8	GC	DQA1	CSF1PO	TPOX	THO1	
Vaginal Swab Alleles	AB	AB	AC	A(B)	B(AC)	1.1,2,*,4.2/4.3				
Victim's Genotypes	AB	AB	AC	AA	BB	2, 4.2/4.3				
Kenneth Simmon's Genotypes	BB	AB	AC	AB	AC	1.1,1.2	10,12	10,11	7,8	
Single-source RMP's (frequency of Simmon's genotype) among Caucasians/Blacks	.2992/.6022	.4859/.4991	.0066/.3012	.4736/.4740	.2935/.0391	.0429/.0735	.1415/.1400	.0356/.0438	.0271/.1647	1 in 1.28 billion/8 million
Genotypes not excluded from vaginal swab	AA, BB, AB	AA, BB, AB	AA, AC, CC	AB, BB	AC	1.1,1.1 1.1,1.2 1.1,2 1.1,4.2/4.3				
Mixture RMP's (frequency of non-excluded genotypes) among Caucasians/Blacks	1.0/1.0	1.0/1.0	.228/.646	.622/.623	.2935/.0391	.135/.125				1 in 172/419

The first row on this table shows the mixture of alleles present on the vaginal swabs taken from the victim's body (the evidentiary samples). The second row shows the victim's alleles from her known sample, and the third row shows Applicant's known alleles. The fourth row,

⁸ This table is reproduced from Applicant's PCR Exhibit 13 and Dr. Lambert's testimony describing it. *PCR Transcript pp. 298-307.*

highlighted in yellow, shows how Dr. Baird calculated his single source statistics. He simply calculated the frequency of occurrence of each of Applicant's known alleles and then multiplied them together to get astronomically large numbers (1 in 1.26 billion whites and 1 in 8 million blacks).

The fifth row on this table lists *all* of the genotypes that are not excluded from the evidentiary sample. At some of the genetic locations tested, a majority (or in some cases, all) of the world's population would be "included." For example, at the first genetic location, LDLR, there are only three possible genotypes that exist in the world: AA, BB, and AB. The victim's known genotype at this location is AB. The evidentiary sample reflects both the A and B alleles. Thus, any of the three possible genotypes, in combination with the victim's genotype of AB, would be "included." In other words, *everyone in the world would be included at this location*. This is also true for the next genetic location, GYPA. The remaining four genetic locations tested do eliminate various percentages of the population, but there are nonetheless a number of genotypes that cannot be excluded as potential contributors. Dr. Baird's trial testimony completely ignored this fact and falsely represented to the jury that the weight of the DNA evidence was much stronger than it actually is. The correct statistical calculation, if one assumes that there were only two contributors to the evidentiary sample (the victim and a single perpetrator), is approximately 1 out of 172 whites and 1 out of 419 African-Americans. This means that (assuming only two contributors to the sample) if one were to randomly select a person other than Applicant off of the street and test that person's DNA, approximately 1 out of 172 whites and 1 out of 419 blacks would also be "included." Thus, there are tens of thousands of people in this state, and countless more throughout the world, who would also be "included" by the DQA1/PM results.

A second problem with Dr. Baird's trial testimony is that it is wholly based on the assumption that there were only two contributors to the evidentiary sample (the victim and a single perpetrator). *Everyone* who has testified regarding the DNA issue in this case agrees that it is not possible to determine whether only a single male or multiple males contributed to the evidentiary sample. See *Testimony of Dr. Steven Lambert, PCR Transcript at p.307-08; Crane Depo. at p. 40; Baird Depo. at p. 46; Reply Affidavit of Drs. Word and Cotton at ¶¶ 26-27 and 29*. If one makes no assumption about how many people contributed to the sample, the frequencies would be approximately 1 in 2 in the African-American population and approximately 1 in 8 in the Caucasian population. *Reply Affidavit of Drs. Word and Cotton at ¶ 27*.

The jury at Applicant's trial was never informed that Lifecodes' conclusions rested on the assumption of only a single perpetrator, nor were jurors told how the numbers would be different without that assumption. Moreover, the jury was never told that Lifecodes tested and excluded approximately twenty-six (26) other men as possible suspects before they tested Applicant's blood sample. *PCR Transcript at p. 307-08*. Many of these other men were erroneously excluded based on the assumption of a single male contributor to the sample. If the possibility of two male contributors is considered, nine of these men cannot properly be excluded as potential contributors. *Id.* In fact, among the twenty-six other suspects who gave DNA samples, there are three pairs who, in combination with the victim, could fully account for all of the observed alleles on the vaginal swab. The jury was never told that twenty-six other men were tested and that some of them could have been contributors to the DNA found in the vaginal swab.

ii. Deposition Testimony of Dr. Baird

As explained above, Dr. Baird acknowledged at his deposition on September 24, 2010, that he did, in fact, present single-source statistics during his trial testimony in Applicant's case. He further acknowledged that a mixture statistical calculation "could be done" and that, if one were to do such a calculation, the statistical frequencies reported by Dr. Lambert are correct:

Q: This frequency is not the frequency of possible contributors to the unknown sample?

A: That is correct. That's just the frequency of the profile from the suspect in this case.

...

Q: Did you ever calculate what the frequency of occurrence of the evidentiary sample . . . would be?

A: No.

Baird Depo at pp. 14-15.

Q: Are there genetic profiles other than Mr. Simmons' which could have contributed to the evidentiary mixture?

A: At some locations, yes.

Q: At a number of locations, correct?

A: Sure. Absolutely.

Q: Did you in any way figure into your statistics the possibility that there were other individuals who have genetic profiles that could have contributed to the sample?

A: That was not calculated in our report that we issued, nor did it come up at trial.

Q: Nobody asked you?

A: Correct.

Q: If you had been asked, you would have calculated the statistics of an unknown individual randomly selected from the population having a genetic profile that could have contributed to the evidentiary sample?

A: That calculation could be performed, yes.

Q: You've seen the testimony and the data and the PowerPoint prepared by Dr. Lambert?

A: Yes.

Q: You don't disagree with any of his -- do you disagree with any of his mixture statistics?

A: The calculations he performed using the mixture calculation appear to be appropriate, yes.

Baird Depo at pp.36-37.

Thus, Dr. Baird did not dispute that: (a) mixture statistics could be calculated; (b) Applicant's mixture statistics are accurately calculated; or (c), mixture statistics account for the fact that other genetic profiles would also be included in the evidentiary sample, whereas Dr. Baird's single-source calculations do not relate in any way to the actual crime scene evidence. Astonishingly, Dr. Baird nonetheless clung to his assertion that his trial testimony was somehow appropriate and "consistent with the field, as [he] understand[s] it." *Baird Depo at p.11.* When pressed about why he presented the single-source calculation instead of mixture statistics, he responded:

A: Mixture statistics are certainly an appropriate way to express a mixture where there could be more than one individual. In this particular case, we performed the calculation of a single source individual and did our final determination based on that.

Q: Why?

A: Based on the data that was obtained, it seemed consistent that this was a mixture of more than one person. It was consistent with it being from the victim and the defendant.

Baird Depo at p.30.

Dr. Baird's claim that his single source calculations were appropriate by field standards is not credible. First, Dr. Baird himself acknowledged that "The Evaluation of Forensic DNA," by the National Research Council, is an authoritative text on the subject of DNA testing, reporting and testimony. *Baird Depo at pp.50-51.* This book was published in 1996, three years before Dr. Baird testified in Applicant's case. Dr. Baird was well aware of its contents. In fact, Dr. Baird sent several chapters of this book to Solicitor Bailey in preparation for Applicant's trial. *See Baird Depo at p. 49 and Applicant's PCR Exhibit 18, Letter from Michael Baird to Walter Bailey dated 2/4/1999.* Moreover, Dr. Baird admitted that this book specifically instructs experts *not* to do exactly what he did in Applicant's case:

Q: Dr. Baird, I think I was referring you to page 129 in Evaluation of Forensic DNA, a publication by the National Research Council.

A: Correct.

Q: In that, on that page is where it details how to calculate the appropriate statistical frequencies for a mixed sample.

A: Correct. And, again, this is copyrighted 1996.

Q: And this testing was done in 1998?

A: Correct.

Q: And you'd agree with me that this is the book that every expert relies on in the appropriate calculation for DNA frequencies?

A: Yes.

Q: And in it, they say if it's a mixed sample, you have to use the mixed sample statistical techniques?

A: Correct.

Q: That's not what you did?

A: Correct.

Q: You used the single source frequency?

A: Correct.

Baird Depo at pp. 50-51.

Second, Dr. Steven Lambert testified at Applicant's PCR hearing that Dr. Baird apparently used single source statistics and that it was not appropriate for Dr. Baird to have done so. Dr. Baird has now admitted that he used single source statistics, and that the primary authoritative text on this subject instructed him not to do so, but he nevertheless asserts that his trial testimony was appropriate according to standards in his field. This is not a battle of the experts; it is not a matter on which reasonable experts could differ. As Dr. Charlotte Word and Dr. Robin Cotton explain in their reply affidavit:

It is never appropriate to report results in the manner used by Dr. Baird. Presentation of the approximate frequency of the defendant's known sample completely misinforms the jury regarding the strength of the evidence. ***No credible forensic scientist would report the results from DNA testing in this manner.***

Affidavit of Drs. Word and Cotton at ¶ 16.

C. QUESTIONS ABOUT RELIABILITY.

Finally, Lifecodes failed to follow a number of generally accepted practices and procedures, raising concerns about the overall reliability of their work in Applicant's case. For example, the lab failed to properly document and report much of its testing, including the data

that were misrepresented to the jury at trial in state's Exhibit Number 24. Moreover, Lifecodes failed to address testing discrepancies in its lab notes, reports and testimony. The following list briefly details a few of these problems:

- Lifecodes made a computation error on its first report providing the statistical calculation for Applicant's known alleles from the DQA1/PM test. *See State's PCR Exhibit 1, Report dated 1/23/1998.* The report gives a frequency of 1 in 81,103 in the African-American population. The correct number is 1 in 8,110. Lifecodes issued an amended report which corrected for the computation error on the DQA1/PM results, and also included the CTT results in the statistical calculation, but failed to disclose that the lab had made an error on the first report. *See PCR Exhibit 2, Report dated 2/2/1998; see also, Baird Depo at pp.13-14* (admitting that he made this error and that the jury was never told that he made the error).
- Lifecodes ran the CTT tests on two separate occasions. The first test was performed on January 23, 1998. The second CTT test was completed on January 29, 1998. Only the results of the second CTT test (and then, only the results from Applicant's known standard) were officially reported. The results from the first CTT test, if correct, would completely exclude Applicant as a contributor to the evidentiary samples. Lifecodes never reported that it had conducted this first test. There are also no records of this test in the pages from the laboratory notebook that were provided to Applicant's trial counsel. Ms. Crane explained during her deposition testimony that she thought the first CTT test did not run properly. *See Crane Depo. at pp.25-26.* However, she never reported this test or explained to trial counsel that she was discounting it. Ms. Crane testified that the lab notes related to the first CTT test were likely not included in the files that trial counsel received because the lab would have only copied what she relied on, and she did not rely on this test. *Id.*
- Lifecodes' results for the sperm fraction from the evidentiary samples are inconsistent across the various tests used by the lab. On the DQA1/PM results, the lab reported a mixture of DNA including male and female cells. These same samples were later tested with the CTT test. However, the CTT results appear to show only a single DNA profile – that of the victim. These results are unexpected and indicate a potential error in testing. Given that the DQA1/PM results indicate the presence of more than one DNA contributor, it is expected that DNA from another individual should be detected with the CTT testing of the same sample. *See Affidavit of Drs. Word and Cotton at ¶ 32.*

III. CONCLUSION

Applicant's DNA claim has developed substantially in the time since the parties first held the evidentiary hearing in February, 2010. In particular, there are many facts that Applicant did not and could not have known for certain until respondent offered the deposition testimony of Dr. Baird and Lauren Crane. Now that these two witnesses have testified, the parameters of the DNA claim have grown considerably clearer. The bottom line is this:

- The state's experts falsely testified that Applicant's DNA was "included" by CTT testing when, in fact, the CTT test results do not incriminate Applicant in any way.
- The state's experts falsely testified to statistical probabilities of more than 1 in a billion in the Caucasian population and 1 in 8 million in the African-American population. This testimony grossly misrepresented the strength of the DNA evidence.
- The totality of the DNA data in this case that can be used for comparison purposes is only 4 alleles from the DQA1/PM results. Based on the frequency of these alleles in the population, it is very likely that many other people would share this series of alleles. If one assumes only a single male contributor, the appropriate numbers are approximately 1 in 170 whites and 1 in 400 African-Americans. If one makes no assumption about the number of potential contributors, the numbers are approximately 1 in 2 African-Americans and 1 in 8 Caucasians.
- Lifecodes' work in this case represents what is "clearly a gross compilation of errors that can be nothing but prejudicial to [Applicant]." *Affidavit of Drs. Word and Cotton at ¶ 39.*
- Through their deposition testimony, Dr. Michael Baird and Ms. Lauren Crane have largely admitted that they did everything that Applicant has alleged. Dr. Baird's bald assertion that his trial testimony was nonetheless appropriate is simply not believable, and no credible forensic scientist would agree with him.

Respectfully submitted,

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ATTORNEY FOR APPLICANT

March 17, 2011

State of South Carolina)

County of Dorchester)

Court of Common Pleas
2005-CP-18-01368

Kenneth Simmons)

Plaintiff
vs.)

Transcript of Record

State of South Carolina)
Defendant)

December 15, 2011
Bamberg, South Carolina

B E F O R E:

The Honorable Doyet A. Early, III, Judge.

A P P E A R A N C E S:

S. Boyd Young, Esq.
Emily C. Paavola, Esq.
James Morton, Esq.
Attorneys for the Applicant

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Official Court Reporter

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10 APPLICANT'S EXHIBITS

11 NO.	IDENTIFICATION	ID	EVD
12 19	12/21/98 Letter		35
20	DNA Information	40	41
13 21	DNA Information		55

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16 STATE'S EXHIBITS

17 NO.	IDENTIFICATION	ID	EVD
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24 NO.	IDENTIFICATION	ID	EVD
25 1	Deposition - Richard Leo	70	

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1 (Whereupon, on December 15, 2011 the following
2 proceedings were held:)

3 THE COURT: Good morning, Mr. Simmons.

4 THE APPLICANT: Good morning.

5 THE COURT: Gentlemen, good morning. Let the record
6 reflect that all are present and accounted for and
7 Mr. Simmons is present with us.

8 Mr. Zelenka, how about just give me a quick overview
9 of where we were and what we're going to do today and
10 succinctly state what you believe the issues continue to
11 be.

12 MR. ZELENKA: Okay. Your Honor, this involves the
13 post-conviction relief application involving Kenneth
14 Simmons versus the State of South Carolina at docket
15 numbers 2005-CP-18-1368. We had a hearing previously in
16 Orangeburg County from February 1 through February 4, 2010
17 in which testimony was presented from social worker
18 Marjorie Hammick, Dr. Mark Tasse -- T-A-S-S-E -- James
19 Aiken, and for the state at that time Walter Bailey out of
20 turn and then the defense presented the testimony of Steve
21 Lambert and the state presented the testimony from one of
22 his defense counsel Jerry Theos. At the end of the
23 hearing the judge allowed the state to take two
24 depositions -- the deposition of Dr. Michael Baird who is
25 one of the trial witnesses who testified concerning the

1 DNA statistics and Lauren Crane who was the technician who
2 had run DNA tests involving the crime and particularly
3 Mr. Simmons. A deposition was also taken by Dr. Richard
4 Leo at that particular time subsequent to February 4, 2010
5 and I've got those depositions here in the format to be
6 introduced and we are objecting to one and I can go into
7 that at the time we present those.

8 At the conclusion of the hearing the court also
9 requested that the matter be reconvened at a future time
10 to take the testimony of Mr. James Bell who was
11 unavailable at the February 2010 term of court. Mr. Bell
12 is here present and available to testify and we're also
13 going to present additional testimony from Walter Bailey.
14 As you may recall at the time of the Simmons hearing the
15 primary solicitor's file that had been prepared by
16 Mr. Bailey was not able to be located for a period of time
17 in the solicitor's office. Subsequent to the hearing
18 Mr. Harrison Bell was able to locate the boxes.
19 Unfortunately, the boxes had on its side the name of
20 Kenneth Williams rather than Kenneth Simmons and upon
21 receipt of those materials we made them available to the
22 defense and to Mr. Bailey and his testimony about some of
23 the matters that he's testifying about previously have
24 been refreshed, particularly concerning the development of
25 one of the charges which is at issue in the case.

1 We're prepared to present Mr. Bailey to testify about
2 that.

3 THE COURT: Thank you. Mr. Morton or whoever.

4 MS. PAAVOLA: Your Honor, we have no witnesses on
5 behalf of the applicant today. We -- The PCR application
6 raises a number of claims, including a mental retardation
7 claim and to be clear that is not an ineffective
8 assistance of counsel claim because this case was tried
9 pre-Atkins. It is raised solely as a freestanding Atkins
10 claim in the PCR application along with several other
11 miscellaneous claims including the claim related to the
12 DNA issues which has developed significantly over the
13 course of the last year through the deposition testimony
14 of Dr. Baird and Ms. Crane which were taken by the state
15 over the course of the last year and many of the facts of
16 that claim have been submitted to the court in the
17 memorandum in support of our reply affidavit and we do
18 still have the reply DNA experts as an outstanding issue.
19 We have proposed submitting their affidavit in lieu of
20 their live testimony, but the state has indicated that
21 they wish to cross examine those experts and so that
22 remains a pending issue.

23 THE COURT: Okay. Let's proceed. I think you all
24 know I've got to stop at about 12:30 today, but I've got
25 all day tomorrow depending on how we go.

1 MR. ZELENKA: Your Honor, at the outset I would seek
2 to introduce the video deposition of Dr. Michael Baird
3 taken September 24, 2010. I have the sealed exhibit and I
4 also have 2 CD's of the video. We'd like -- I guess we
5 would have those marked as exhibits.

6 THE COURT: Yea, this is Court's exhibit.

7 Any objection, ma'am?

8 MS. PAAVOLA: No objection, Your Honor.

9 (WHEREUPON, State's Exhibit No. 18, 18a & 18b were
10 admitted into evidence.)

11 MR. ZELENKA: The state would also like to introduce
12 as State's Exhibit 19 the November 29, 2010 deposition of
13 Lauren Crane.

14 THE COURT: Any objection?

15 MS. PAAVOLA: No objection.

16 THE COURT: C-R-A-N-E?

17 MR. ZELENKA: Yes.

18 (WHEREUPON, State's Exhibit No. 19 was admitted into
19 evidence.)

20 THE COURT: Mr. Zelenka, where are all of the other
21 exhibits? You know, we tried this in Orangeburg. That's
22 just for housekeeping purposes. Do you have them?

23 MR. ZELENKA: No, I do not have them.

24 THE COURT: Are they with the clerk in Orangeburg?

25 MR. ZELENKA: I believe they---

1 THE COURT: Or with the court reporter?

2 THE COURT REPORTER: They're probably with the clerk.

3 MR. ZELENKA: I have a receipt for exhibits, a copy
4 of that.

5 THE COURT: It is a little more difficult or
6 complicated because it's a Dorchester County case we tried
7 in Orangeburg. I'll make some inquiries on the record.
8 Who is the receipt from?

9 MR. ZELENKA: February 8, 2010. It is stamped Cheryl
10 Graham, Clerk of Court for Dorchester County; so it must
11 be in the Dorchester County Clerk's Office.

12 THE COURT: We'll call her.

13 MR. ZELENKA: We'll also follow up on that, Judge.

14 THE COURT: All right. What else?

15 MR. ZELENKA: Your Honor, I have the deposition of
16 Dr. Richard Leo.

17 THE COURT: L-E-0?

18 MR. ZELENKA: L-E-0 -- that was taken July 12, 2010.
19 We have an objection to the introduction of this exhibit.
20 Do you want me to go over our objection to it?

21 THE COURT: Well, yea. Are you putting it in?

22 MR. ZELENKA: Well, they sought to introduce an
23 affidavit. We objected to the introduction of the
24 affidavit. You allowed that we would take the deposition
25 and then you deferred making a determination if I recall

1 correctly on the admission of the affidavit as well as the
2 deposition.

3 THE COURT: Okay.

4 MR. ZELENKA: We've got substantive objections to the
5 testimony of Dr. Leo.

6 THE COURT: Let's do this. Why don't we go ahead
7 with testimony this morning. We will not need Mr. Bell or
8 Mr. Bailey to do that. We can clear up their schedules.
9 Obviously, that's something we can do without them.

10 MR. ZELENKA: Okay.

11 THE COURT: So we'll hold Richard Leo in abeyance
12 until towards the end of the day.

13 MR. ZELENKA: Okay. The State would then call James
14 Bell.

15 JAMES A. BELL, after being duly sworn, testified
16 as follows:

17 DIRECT EXAMINATION

18 BY MR. ZELENKA:

19 Q Mr. Bell, state your name for the record, please.

20 A James A. Bell.

21 Q What is your current occupation?

22 A I am an attorney.

23 Q How long have you been an attorney in South Carolina?

24 A Forty-plus years.

25 Q Briefly describe your areas of practice at this time.

1 A It is a general practice. I do no bankruptcies. I
2 do no tax work, nor any heavy duty estate planning.
3 General, otherwise.

4 Q Have you handled murder cases in your life?

5 A I have.

6 Q Have you handled death penalty cases?

7 A Only this one.

8 Q Okay. How did you become involved in Mr. Simmons'
9 case if you recall?

10 A I received a communication from a judge that asked if
11 I would take second chair because Gene Dukes had been
12 recused as attorney -- excused or whatever.

13 Q The judge who contacted you was Judge Rodney Peeples?

14 A It was.

15 Q And he ended up being the trial judge in this
16 particular case?

17 A Correct.

18 Q Who else was associated on that case as co-counsel?

19 A Jerry Theos.

20 Q Okay. Briefly describe -- Let me ask this. Do you
21 currently have a file in this case?

22 A I do not.

23 Q What happened to your file in this case?

24 A I had an office fire 9/11/05 and lost all of my
25 records.

1 Q So since 9/11/05 you haven't had any personal
2 information to refresh your recollection about this case;
3 is that correct?

4 A Well, I received the filing in '05 that just came in
5 last year -- year before last -- and then I saw the
6 transcript, but that's it.

7 Q Okay. Now, what was the division of your role and
8 Mr. Theos' role in this particular case, if you can
9 describe that?

10 A Mr. -- I got in this case several months after
11 Mr. Theos had been involved. I was advised I would be
12 second chair. As such, that's what I would be and my
13 involvement was to sit in on the discussions with the
14 experts and, et cetera, for determination of what was
15 going to be said at trial. Jerry did all the work. I was
16 there. Sometimes he would call me and say, you know, Jim,
17 I am meeting with so and so today; you don't need to come.
18 So, I was just there.

19 Q You were just there?

20 A I was.

21 Q In -- But you did participate in some meetings with
22 defense experts?

23 A With most of them.

24 Q Okay. Who made the decision on what witness to call
25 within each of the phases?

1 A Jerry Theos.

2 Q Did you ever make a decision on which witnesses to
3 call?

4 A I know of none that I made a decision to exclude; so
5 every one would have been called that he said was to call.

6 Q Okay. And did that include both the guilt phase and
7 the penalty phase of the case?

8 A Correct.

9 Q Were you involved in the preparation and presentation
10 of information concerning whether the defendant was
11 mentally retarded at the time of that particular trial?

12 A I was present at some of the meetings with experts.
13 As far as developing testimony or anything, I did none of
14 that.

15 Q Do you recall if any meetings were held at your
16 office with Dr. Dennis Keyes and some witnesses in January
17 before the trial?

18 A I can't recall having a meeting.

19 Q Do you remember who Dennis Keyes was?

20 A I remember the name.

21 Q Do you remember that the defense team had hired an
22 expert in the area of mental retardation out of the
23 College of Charleston?

24 A I do. I remember that.

25 Q Yet, Mr. Keyes did not testify in the penalty phase

1 or the earlier phase of the trial; isn't that correct?

2 A I would say yes if you say so. I didn't see his name
3 in the transcript. I didn't read it that closely, though.

4 Q Do you recall any involvement with a pharmacological
5 expert Dr. Alexander Morton out of Charleston also?

6 A Again, I was present when these people at a time or
7 two when those people were discussing the case with Jerry.
8 As far as having anything to do with input into their
9 testimony, I had none.

10 Q Okay. Do you recall the retention of a social worker
11 Jeffrey Youngman who worked with the defense team to
12 prepare background information concerning Mr. Simmons and
13 Mr. Simmons' family?

14 A I do.

15 Q Mr. Youngman was not called in the penalty phase of
16 the case to testify about that background information. Do
17 you know why he wasn't called?

18 A I had no input on any of the witnesses that were
19 called or not called.

20 Q Okay.

21 A That I can recall. I have no records to say
22 otherwise.

23 Q Let me show you a document described as defense
24 witness list and ask if that's your handwriting or refresh
25 your recollection about that?

1 A This is not my handwriting.

2 Q Okay. That document is in the court file and I
3 believe that it's been introduced as previously as
4 Respondent's Exhibit 15, list of witnesses. That includes
5 in that witness list Alex Morton, Dennis Keyes, Jeff
6 Youngman, and Ron Ostrowski, doesn't it?

7 A The names are on the list.

8 Q Okay. And it also includes on page two of the list
9 individuals from the Dorchester County Detention Center
10 officers; isn't that correct?

11 A Correct.

12 Q In the penalty phase of this case were you aware
13 whether information about Mr. Simmons' adaptability to
14 prison could have been an area that evidence could be
15 presented in the death penalty phase?

16 A Was I familiar that that could be presented?

17 Q Yes.

18 A It is my understanding it could, I mean, in this
19 particular case, you know.

20 Q Okay. During the trial -- during one of the witness'
21 testimony -- particularly, Sandra Franklin -- did you ask
22 her whether, in fact, the defendant was adapting to
23 prison, to jail life? Do you recall that?

24 A If it's in the transcript, I asked it. I didn't try
25 to memorize the transcript. It's been 12 years ago.

1 Q I understand that. Do you have any recollection why
2 jail guards were not called concerning making a
3 presentation concerning adaptability to prison at the time
4 of that proceeding?

5 A I do not.

6 Q Were you asked -- Let me ask it this way. The
7 witnesses who were presented in the penalty phase of the
8 trial: Calvin Linning, the defendant's cousin who is also
9 a math teacher in Summerville High School; Charles Wilson,
10 the former teacher who also knew the family; Gene Simmons,
11 the defendant's brother; Annette Gettis, the defendant's
12 younger sister; Sandra Franklin who knew the defendant was
13 one of the hospice volunteer and -- volunteer worker at
14 Palmetto House and Robin Schmedling (phonetic) who had
15 known the defendant since high school and Doris Russell
16 were the witnesses that you called to testify in that
17 particular proceeding.

18 At the time of that presentation were there any other
19 witnesses that you intended to call that were not called
20 by you that circumstances prevented them from being
21 called? Was there anything missing from the presentation
22 that you understood you were going to be presenting on
23 that particular proceeding?

24 A I have no recollection of that -- of anything
25 missing.

1 Q Do you recall any discussion with Mr. Theos about
2 your failure to interview or have jail witnesses called?

3 A No.

4 Q Were you satisfied that you had presented all of the
5 witnesses you intended to present in that mitigation phase
6 based upon the information that you had received?

7 A I'm satisfied that the witnesses were called -- the
8 ones that were to be called.

9 Q Do you have any recollection of interviewing any jail
10 guards, sheriff's department employees concerning your
11 client's adaptability to prison?

12 A I don't recall. At that point in my practice I was
13 in the jail an awful lot with other clients and I talked
14 to especially a couple of these guys a lot; so I can't
15 recall anything.

16 Q Did you have an impression about Mr. Simmons' present
17 adaptability to the jail settings that he was in prior to
18 the trial?

19 MR. MORTON: I object, Your Honor.

20 THE COURT: What's the grounds?

21 MR. MORTON: I don't think it's his prerogative to
22 make that impression. I think it may be his prerogative
23 to try and develop it or not develop it, but for him to
24 give an opinion on the ultimate issue I don't think is
25 his---

1 THE COURT: I'll allow it.

2 THE WITNESS: I thought he adapted well.

3 Q And that was the basis of at least one of the
4 questions that you gave of Ms. Franklin at page 2257 of
5 the record. Wouldn't that be correct?

6 A Yea. There is no question.

7 Q Did Mr. Theos indicate to you that you should also be
8 calling any particular jail guards that you can recall?

9 A It's my recollection -- not having any records, but
10 it's my recollection that the witnesses that were called
11 in this case were witnesses that Mr. Theos wanted called.
12 I do not recall me having a carte blanche to make a
13 decision as to what witnesses are or are not to be called.
14 If the witnesses were brought there and they were put on
15 the list, those that we called he said call.

16 Q Okay. Do you have a recollection as to when you met
17 with particular witnesses that were called in the penalty
18 phase of the trial to prepare them if you did prior to
19 their testimony?

20 A I can't -- I do know that I talked to some of the
21 ladies and some of the people that were there prior to the
22 jury being selected. I mean, I talked to some there at
23 the courthouse. I can't recall talking to them outside.

24 Q Okay. Do you have a recollection of going and being
25 present during any of the mental health evaluations that

1 your client had with the state hospital doctors?

2 A Again, not having any records, I recall going to the
3 state hospital in and about that time to have, you know,
4 for a client to be interviewed, but I'm not sure it was
5 Mr. Simmons, but I really -- I know I went to Coastal
6 Center once where they were talking to one of the state's
7 doctors, but, again, that was -- I was there, but
8 Mr. Theos was doing the work.

9 Q You had presented in opening argument in the penalty
10 phase and a closing argument in the penalty phase. Do you
11 recall that?

12 A I do.

13 Q Switching to Mr. Bailey's closing argument, whose
14 responsibility do you see it at that time to object to
15 anything which may or may have been improper in
16 Mr. Bailey's argument? Was it Mr. Theos' alone? Was it
17 you? Did you divide that responsibility, if you can
18 recall?

19 A It would -- The responsibility was never divided.
20 Mr. Theos was first chair. Mr. Theos ran the case. I
21 carried a briefcase.

22 Q With respect to, again, the decision on the penalty
23 phase, do you know why expert witnesses were specifically
24 not called in that phase of the trial?

25 A I have no recollection as to why or why not a witness

1 was or was not called.

2 Q And, again, was that a decision that you would have
3 made, Mr. Theos, or both of you together?

4 A My recollection would be that Mr. Theos would have
5 made the decision as to whether or not a witness was
6 called.

7 Q Okay. Did you do any independent work on this case
8 independent of Mr. Theos or were you always in combination
9 with Mr. Theos in the pretrial investigation in this case?

10 A I cannot recall. Again, I don't have a file. If I
11 had done anything I would have had it noted, but I got
12 involved in the case several months after it was going on.
13 I replaced Gene Dukes. I don't know -- what, four, five,
14 or six months. Mr. Theos had this case lined up as to
15 what he wanted to do at that time and that was just the
16 way it was. He ran the case and I sat in on any and all
17 the interviews of witnesses and, et cetera, that Mr. Theos
18 advised me or recommended that I come to and there were
19 some he said don't come.

20 Q Okay. The court's indulgence one moment. Do you
21 recall anything about Mr. Bailey's closing argument that
22 you felt that Mr. Theos should have objected to?

23 A I don't recall reading his closing argument. I do
24 not recall today what he said 12 years ago.

25 MR. ZELENKA: No further questions, Your Honor.

1 THE COURT: Cross?

2 MR. MORTON: Just a couple of questions, Your Honor.

3 CROSS-EXAMINATION

4 BY MR. MORTON:

5 Q Mr. Bell, you testified that you had been, of course,
6 to the jail to talk to Mr. Simmons?

7 A I had.

8 Q You had talked to some of the guards; correct?

9 A I have.

10 Q Okay. And you testified that in your opinion after
11 your review you thought Mr. Simmons would have been
12 adaptable to prison life?

13 A From the information I had, yes.

14 Q And you -- Fair to say you and Mr. Theos chose not to
15 develop that as a mitigation defense; correct?

16 A I did not choose to develop or not to develop any
17 portion of the trial. It was determined that who was
18 called was to be called.

19 Q And it was determined not to pursue that?

20 A No doubt about it. It didn't seem to be an issue.

21 MR. MORTON: That's all I have. Thank you very much.

22 THE COURT: Anything on redirect?

23 MR. ZELENKA: Nothing, Your Honor.

24 THE COURT: All right. May Mr. Bell be excused?

25 MR. ZELENKA: No objection from the state.

1 THE COURT: Next witness, please.

2 MS. BROWN: Your Honor, the state would recall Walter
3 Bailey.

4 WALTER M. BAILEY, after being duly sworn,
5 testified as follows:

6 DIRECT EXAMINATION

7 MS. BROWN:

8 Q Mr. Bailey, would you state your name for the record
9 again, please, sir?

10 A Walter Marshall Bailey.

11 Q And you were the solicitor who prosecuted
12 Mr. Simmons --

13 A Yes.

14 Q -- in his death penalty trial? Do you recall
15 testifying at the February 2010 hearing in this matter?

16 A I recall testifying in general. I don't know that I
17 can recall every question, every answer.

18 Q Well, since the February of 2010 hearing have you had
19 an opportunity to review some documents that were not
20 available to you before?

21 A Yea, I reviewed portions of my file which was missing
22 for a period of time after I left the solicitor's office.

23 Q Okay. And just to be clear which portions you went
24 over, can you tell us is it your habit to create trial
25 notebooks when you are preparing for a prosecution?

1 A Yes.

2 Q Did you create trial notebooks in the prosecution of
3 Mr. Simmons?

4 A Yes.

5 Q Have you had an opportunity to review your trial
6 notebooks?

7 A Yes.

8 Q I'd like to hand you two books and see if you can
9 identify these books.

10 THE COURT: You got room, Mr. Bailey?

11 THE WITNESS: Yea, I think so.

12 Q Would these be trial notebooks that you had prepared
13 for the prosecution in this case?

14 A One of them is. One of them isn't. They are both
15 notebooks I prepared. The one that says Volume Two on it
16 was part of my trial notebook. The other one was just
17 miscellaneous papers that were not actually anything I
18 tended to refer to in trial, but were just part of the
19 entire file.

20 Q So that would be part of your preparation you had
21 documents?

22 A Yea.

23 Q And you later combined them?

24 A Yea.

25 Q Into a notebook. Okay. And that would be volumes

1 two and six?

2 A Two and six; that's correct.

3 Q Did you find in your review of these documents
4 particular sections devoted to DNA evidence?

5 A Yes, I did.

6 Q Did you find sections devoted to or tabbed to
7 reference Dr. Baird?

8 A Yes.

9 Q And Dr. Crane?

10 A Yes.

11 Q And did you have reports from Lifecodes?

12 A Yes.

13 Q Okay. And did you have these notebooks to review
14 prior to your 2010 testimony?

15 A No. I think they were still missing at that time.

16 Q Once the notebooks were located you reviewed all of
17 the notebooks?

18 A I reviewed portions of this.

19 Q In particular these volumes two and six, do you
20 recall reviewing those?

21 A I reviewed them. I didn't review every single page.
22 I skimmed over most of the DNA stuff or all of the DNA
23 material other than the printed general books or
24 publications that I had in the file. I didn't review all
25 of that. I reviewed portions of the testimony.

1 Q Do you recall having the opportunity to speak to
2 opposing counsel and discuss what was in the notebooks?

3 A Yes.

4 Q And to your knowledge have they had the notebooks
5 available during these discussions?

6 A To to the best of my knowledge they've had them
7 available. I am not sure if they had entire copies of the
8 notebooks, but they were present when they interviewed me
9 yesterday.

10 Q Okay. Now, going back to the trial itself, in the
11 course of preparing for trial did you review reports on
12 the DNA analysis from Lifecodes?

13 A Yes.

14 Q Okay. And do you recall presenting the witness
15 Dr. Lauren Crane at trial?

16 A Yes.

17 Q Do you recall presenting a diagram during that
18 testimony?

19 A A chart, yea.

20 Q A chart. And it was Exhibit 24. Do you have
21 anything in those notebooks that would demonstrate what
22 the chart reflected?

23 A Yea.

24 Q And you'll recall in the first hearing the chart was
25 not available. It's not in the clerk's office; so we

1 don't have the original exhibit that went into trial.

2 A Yea. The chart was introduced -- my recollection is
3 it was a blow-up of a document I prepared that was
4 introduced and I think the original exhibit is missing
5 from the clerk's office. I've got a marked-up copy here
6 of that chart.

7 Q Okay.

8 A And I think there's also -- and I am not sure where
9 it is in here -- there is a clean copy of this, also.

10 Q Okay. On that chart just for clarity in the record
11 can you tell us that -- the categories, not the columns,
12 but the samples that are referenced?

13 A Just the...

14 Q Is it the victim's sample to begin with?

15 A The victim's blood sample, the defendant's blood
16 sample, a vaginal swab that went initially to MUSC, the
17 female fraction to that swab, two vaginal swabs that went
18 initially to SLED, and the female fraction of those two
19 swabs.

20 Q Okay. The second line of that chart refers to
21 Kenneth Simmons' sample?

22 A Yes.

23 Q Where did you get -- First of all, who created that
24 chart?

25 A I did.

1 Q You created that chart?

2 A Yes.

3 Q How did you go about creating that chart?

4 A Primary -- I got information from the reports that I
5 got several reports over a period of time from the lab and
6 I used the format that they used with certain
7 modifications to make it more understandable to the jury
8 and it was a compilation of that with certain exceptions
9 where it at this point in time I can't recall where the
10 information came from, but primarily I got the information
11 out of the -- out of the DNA material that I received from
12 Dr. Baird or Ms. Crane or somebody from Lifecodes.

13 Q The creation of the chart -- that was only your
14 responsibility. That's what you did. You pulled
15 information and created that chart --

16 A Yes.

17 Q -- is that correct?

18 A Yes.

19 Q Let me ask you on the second line of the chart which
20 goes to Mr. Simmons' sample there are three columns at the
21 very end. Can you tell us what your chart reflects for
22 the report of those three columns?

23 A Okay. CSF1P0,10,11; TPOX,10,11; TH01,7,8.

24 Q Okay. Do you recall receiving a February 2, 1998
25 report from Lifecodes?

1 Just for clarity of the record, the February 2, 1998
2 report has already been submitted as State's Exhibit 2 and
3 just for perhaps ease and reference if I may offer looking
4 at volume six on the DNA tab.

5 A Yea, I have it. Yes, I did have that. I am not sure
6 specifically what your question was. I was looking for
7 the document.

8 Q On the February 2, 1998 report could you tell us what
9 your records reflect that Lifecodes recorded for the last
10 three columns?

11 A They reported for the CSF1P0,10,12; TPOX,10,11;
12 TH01,7,8.

13 Q Does that conform with your chart?

14 A It does not conform as far as the CSF1P0. When I
15 prepared the chart there was a typographical error on the
16 blood. Instead of putting 10,12 it came out 10,11 and I
17 missed that in the proofreading.

18 Q Mr. Bailey, did anyone at Lifecodes help you create
19 that chart at any time?

20 A No, other than I got certain information in regard to
21 the vaginal swab from MUSC on the last three DNA tests
22 that were run and I can't remember this point in time
23 whether that was obtained by telephone conversation by
24 somebody from Lifecodes or whether there was some type of
25 documentation that is no longer in the file, but to the

1 extent that I got some information from Lifecodes to put
2 in that chart I did get that from Lifecodes. That was my
3 only source of that information.

4 Q Okay. Did you ever---

5 A Just to clarify, I can't specifically recall. I do
6 know that I did talk to Ms. Crane and Dr. Baird on several
7 occasions. I've got some sketchy notes of those
8 conversations, but after 12 years you can't remember the
9 specifics of it.

10 Q Okay. Is it -- Strike that. Let me start again.
11 When you developed that chart you were not requesting any
12 additional analysis by way of that chart?

13 A Not when I developed the chart. The analysis was
14 already done. I received Dr. Baird's final report. This
15 was done shortly before trial based on information that I
16 had received in one form or another from Lifecodes, but
17 the statistical analysis had already been done and sent to
18 me.

19 Q That's completely independent --

20 A Independent.

21 Q -- from your chart?

22 A This chart was never given to anybody from Lifecodes
23 prior to trial.

24 Q Okay.

25 A I intended to go over it with them, but they came in

1 late. Ms. Crane, I think, was to be the first witness
2 because she did the actual analysis and anyway the plane
3 arrived. They came from the airport. The court was
4 basically waiting for them, as I recall, to show up. She
5 wanted to change her clothing and get freshened up or
6 whatever before she testified. That took some additional
7 time; so the bottom line is I did not get an opportunity
8 to go over the chart with her before she testified.

9 Q Let's turn to statistics for just a minute. Do you
10 recall Dr. Baird's role in giving testimony at trial?

11 A Yea, Ms. Crane did the analysis and I think Dr. Baird
12 reviewed her or supervised her analysis. He did the
13 statistical probabilities. Dr. Baird did.

14 Q Did you have communication with Dr. Baird about the
15 statistics?

16 A I had telephone conversations with him prior to
17 trial. I had written correspondence in the form of
18 reports and lab notes and that kind of stuff.

19 Q Did Dr. Baird provide any materials to explain
20 statistics?

21 A I had materials that discussed specifics --
22 statistics. Whether or not they came from Dr. Baird or a
23 seminar or something I attended during the year or so
24 before that trial I can't recall, but it would have been a
25 general nature -- not the case specific.

1 Q What was your understanding of the use of statistics
2 in this case? What did the statistics represent?

3 A The statistics would represent in my recollection
4 that once you have obtained a match between the
5 evidentiary sample and the known blood sample and
6 extracted DNA you would -- the expert would determine from
7 each individual test that was run -- in this case there
8 were nine of them -- nine of them -- would do the
9 measurements, come up with the numbers to identify the
10 different measurements, and combine the statistical
11 probability of all of the locations that were tested and
12 would then determine the probability of an unrelated
13 person -- a person unrelated to the person provided the
14 sample having the same DNA profile as disclosed on the
15 test.

16 Q Did you work with Dr. Baird in developing the
17 questions to pose in his testimony?

18 A He sent me -- like a lot of experts do -- sent sample
19 questions. I would have reviewed those sample questions
20 and perhaps, you know, adapted that to something that I
21 wanted to use in court.

22 Q Okay. And your questions to Dr. Baird at trial, did
23 you ever ask him to make some calculations based on your
24 chart?

25 A No.

1 Q To your best of your recollection did Dr. Baird or
2 anyone at Lifecodes or any source ever tell you that there
3 was DNA evidence that in their opinion excluded
4 Mr. Simmons?

5 A No.

6 Q Has anything that you've seen showed an exclusion of
7 Mr. Simmons?

8 A No.

9 MS. BROWN: I beg the court's indulgence. No further
10 questions.

11 CROSS-EXAMINATION

12 BY MR. YOUNG:

13 Q Good morning, Mr. Bailey.

14 A Good morning.

15 Q We met at your office yesterday in Summerville with
16 Mrs. Paavola and myself to talk about your testimony
17 regarding the DNA evidence in this case.

18 A That's correct.

19 Q And you had previously testified in February of 2010
20 regarding everything that you had done in the case
21 including the DNA stuff?

22 A Yea.

23 Q At the time that you testified in February of 2010
24 you had been advised that there was a page missing -- that
25 there was this missing page?

1 A Yea, I recall something about a missing page that
2 should have been the Lifecodes file that apparently was
3 not there.

4 Q Okay. And it turns out that that page that was
5 missing that everybody was looking for was a chart that
6 you had created?

7 A Okay.

8 Q Is that right?

9 A Yea.

10 Q One more thing about your February 2010 testimony you
11 testified and the transcript page that I have is starting
12 on page 241 at the end of the question at line 19 was you
13 prepared for presenting the DNA testimony at the trial.
14 How did you go about preparing to have that individual
15 testify? And your response was, I reviewed the results.
16 I had been to a couple of seminars and done some reading
17 on DNA. I never became a DNA expert, but I did learn
18 enough at that time to understand the steps that they
19 would go through in the DNA analysis and the statistical
20 probabilities that they would arrive at when they
21 determined there was a match and I would combine that
22 basic information that I had with a specific report,
23 formulate the questions that would elicit the answer that
24 I would have in the report, and would go over that with
25 the witness prior to trial, make any changes or

1 corrections, and then ask those questions and I would get
2 the answers which hopefully would be consistent with the
3 written report which is what I did in this case.

4 A Yea.

5 Q Okay. But today you're saying you never went over
6 this chart with Laura Crane prior to her testimony?

7 A I didn't give her a copy of the chart. I may have
8 discussed the information on the chart with her by
9 telephone or I may have discussed it with Dr. Baird during
10 the several conversations I had with both of them. I
11 can't recall at this particular time whether or not, you
12 know, what occurred and what conversations.

13 Q Okay.

14 A What I think made this case a little different than
15 others or what I intended to do and what I normally do
16 which I alluded to before is I like to sit down face to
17 face with a witness before trial and go over the
18 testimony. I didn't do that in this case because I
19 thought I would have more time for trial prep between the
20 time they arrived in town from out of state until the time
21 they actually testified.

22 Q So what you would normally do is not what you did in
23 this particular case?

24 A Ideally, right. That's correct.

25 Q What you wanted to do ideally is not what happened in

1 the case of Mr. Simmons?

2 A To the extent that I didn't have an opportunity to
3 sit down face to face and go over their testimony with
4 them.

5 Q Okay. How many charts did you prepare in preparation
6 for the trial?

7 A This one chart to the best of my knowledge -- to the
8 best of my recollection.

9 Q That's the only chart that you prepared?

10 A Yea.

11 Q You had two other charts with Dr. Baird, but you took
12 those directly out of the reports that he made regarding
13 the statistics?

14 A Yea. There was a report and then an amended report
15 that I extracted information out of that and used the same
16 format as they had used in their report, if that makes
17 sense.

18 Q It does. I understand and with regard to proposed
19 testimony Dr. Baird sent you some proposed questions?

20 A He sent me proposed questions of a general nature,
21 not specific to this particular case. They were just form
22 questions that he would send to -- on any case just to
23 establish his credentials as an expert and the process he
24 went through.

25 Q And you had a number of pieces of correspondence that

1 you sent letters to Lifecodes and they sent letters back
2 to you and that was made part of the file?

3 A Yea, those correspondence back and forth.

4 Q Okay. Mr. Bailey, I am going to show you what I've
5 marked as Applicant's 19. It is page 204 from the
6 Lifecodes file and ask if you recognize that.

7 A Okay. According to this I did send a chart to her.

8 Q Can you tell me what that is?

9 A It's a letter from me to Ms. Crane at Lifecodes dated
10 December 21, 1998.

11 Q In that letter you say that you prepared a chart?

12 A Yea.

13 Q And that you're sending it to her for review?

14 A Yea.

15 Q The only chart that you prepared is --

16 A To the best of my recollection --

17 Q -- that one.

18 A -- this is the only chart I prepared.

19 Q So you sent it to her in December of 1998?

20 A It would appear from this letter that I did, yes.

21 MR. YOUNG: Your Honor, at this time I'd offer
22 applicant's 19 which is part of the Lifecodes file which I
23 believe is already in evidence but I would offer the
24 letter separately.

25 THE COURT: Any objection?

1 MS. BROWN: No objection to the letter, Your Honor.

2 THE COURT: Thank you.

3 (WHEREUPON, Applicant's Exhibit No. 19 was admitted
4 into evidence.)

5 Q Mr. Bailey, part of the chart that you prepared and I
6 guess specifically under Mr. Simmon's known blood standard
7 was the evidentiary sample F156384; is that correct?

8 A Ask me that again.

9 Q The third -- I guess the third section down
10 immediately under Kenneth Simmons blood --

11 A Okay.

12 Q -- the next sample down would be the F156384; is that
13 correct?

14 A Yea, the vaginal swab and saline from MUSC male
15 fraction.

16 Q And under that would be the female fraction, right,
17 sample 84?

18 A Yea.

19 Q And you mentioned some information that you got from
20 MUSC earlier. Did MUSC conduct any genetic testing in
21 this case?

22 A I don't believe so. I think as part of -- the
23 autopsy was done at MUSC to the best of my recollection
24 and they took a sample of various body fluids during the
25 course of the autopsy.

1 Q But they didn't do any of the CTT testing?

2 A They didn't do any DNA testing. Whether or not they
3 did other testing in some respect, I don't recall at this
4 time.

5 Q And have you reviewed the two different CTT tests
6 that were conducted by Lifecodes?

7 A When you say -- What do you mean by CTT test?

8 Q I mean the genetic test for the CSF1P0, the TPOX, and
9 the TH01 genetic location.

10 A Have I reviewed what, now?

11 Q The two radiographs from Lifecodes concerning the
12 test that they did.

13 A I haven't reviewed the radiograms or anything. I
14 have skimmed through the file, but I haven't study that in
15 any detail.

16 Q And are you qualified to determine what allele
17 numbers --

18 A No.

19 Q -- these different bands might represent?

20 A No.

21 Q And it's part of the file, but do you recall that
22 there were two tests done -- one on January 23, 1998 and
23 the second one done on January 29, 1998?

24 A Are you talking about the same test or different
25 test?

1 Q The same test was done twice.

2 A I don't recall that.

3 Q Okay. You didn't have---

4 A I may have at one time 12 years ago, but I don't
5 recall that now and I didn't specifically review that in
6 preparation for trial here and we didn't -- we didn't
7 discuss that yesterday to the best of my knowledge.

8 Q Okay.

9 A You're catching me cold on it.

10 Q And I apologize and I guess what I am trying to make
11 clear in the record was the dates that the various genetic
12 tests that were done to determine these last three columns
13 were conducted.

14 A Okay.

15 Q Because one of the things that we did talk about was
16 the lab page that discussed the sample 56384.

17 A Right, yea.

18 Q And we talked about how that sample was consumed and
19 that there were no -- there was no sample of that left
20 after January 15?

21 A That's correct. We talked about that yesterday.

22 Q So that column should not have any results in it?

23 A If there were no testing done on the vaginal swab for
24 MUSC there should be no results in the last three columns.

25 Q For that sample 156384?

1 A Yea.

2 Q I sent you copies of Ms. Crane's and Dr. Baird's
3 deposition; is that correct?

4 A Yea, you did.

5 Q Did you review those or have a chance to review
6 those?

7 A I reviewed those at the time you sent them to me. I
8 didn't review them again yesterday.

9 Q Okay. Ms. Crane who did the genetic testing -- she
10 said that she never issued a report determining any CTT
11 results other than those for Mr. Simmons. Does that sum
12 it up?

13 A Yea. I mean, I don't want to guess. Whatever is in
14 the report is in the deposition is what she said.

15 Q With regard to Dr. Crane's testimony at trial -- and
16 I am guessing that the trial transcript is in the record.
17 I am referring to page 1470 of the trial transcript where
18 you asked her the question: All right. Would you state
19 whether or not, Ms. Crane, based on the tests that you've
20 done that are reflected on that chart whether the DNA
21 profile for the male fraction of the vaginal swabs that
22 was taken from Lilly Bell Boyd's autopsy by Dr. Nicholas
23 was identical to the DNA profile from Mr. Simmon's blood
24 in all nine loci or locations there, and her response was,
25 Basically, what we found was a mixture of DNA which we

1 could do eliminate Kenneth Simmon's blood as being a
2 contributor to. Is that correct?

3 A Yes.

4 Q Now you were pointing to the chart that you prepared.
5 That's what you and Dr. Crane were talking about; right?

6 A If I referenced the chart in that question, yea. I
7 can't -- I was using that chart in the course of my
8 questioning of Ms. Crane. Whether or not I pointed to the
9 chart during that question, I can't tell you.

10 Q Okay. And you asked her specifically whether or not
11 Mr. Simmons matched all nine loci of the male fraction
12 from the vaginal swab?

13 A Yea.

14 Q When, in fact, there were never any results for --

15 A There were no results according to what I found out
16 subsequently in regard to the swab from -- the vaginal
17 swab from MUSC but on 56386 second to the bottom there was
18 a vaginal swab that went directly to SLED which is my
19 understanding they did get a profile on the last three.

20 Q So you have a report indicating that there was a
21 profile generated that is 10,11,10,11,7,8?

22 A No, it is 10,10,12. As I said earlier there is a
23 typographical error in that column from CSF1P0. Both
24 Kenneth Simmons' blood and the vaginal -- the male
25 fraction of the vaginal swab indicate on my chart 10,11.

1 The documentation from Lifecodes shows that to be a 10,12,
2 but, nevertheless, it is a match.

3 Q Well, the only documentation from Lifecodes is that
4 Mr. Simmons is a 10,12; correct?

5 A That's the only documentation in regard to
6 Mr. Simmon's blood.

7 Q There is no documentation with regard to sample
8 number F156386 from Lifecodes at all; is there?

9 A I believe there is. If you'll give me a second I'll
10 see if I can find it. Yea, I've got a note here with
11 results from 56386 which is the vaginal swabs to the male
12 fraction that went to SLED indicate for the CSF1P0 10 and
13 12.

14 Q You have a note from Lifecodes indicating that?

15 A Yea.

16 Q May I see the note? I'll mark this as Applicant's 20
17 and see if that's the same thing that you're referring to.

18 A Yes, it is.

19 (WHEREUPON, Applicant's Exhibit No. 20 was marked for
20 identification only.)

21 MR. YOUNG: Your Honor, at this time I'd offer
22 Applicant's No. 20 which I believe is the handwritten page
23 that Mr. Bailey is referring to.

24 THE COURT: Any objection?

25 MS. BROWN: No objection, Your Honor.

1 (WHEREUPON, Applicant's Exhibit No. 20 was admitted
2 into evidence.)

3 Q Now, Mr. Bailey, you indicate that this is -- is this
4 a report -- is this part of any report from Lifecodes?

5 A It is part of the file I got from Lifecodes.

6 Q This is part of the Lifecodes file?

7 A Yea.

8 Q It's not part of the --

9 A It's not part of the formal report that they sent me
10 which would be a summary of their conclusions.

11 Q Okay. Is it a report anywhere else in Lifecodes'
12 file other than on this page?

13 A In regard to that particular item number and that
14 particular test, no. To the best of my knowledge, that's
15 it.

16 Q Is this page dated or signed or do you know who
17 authored it in any way?

18 A I don't know who authored it. I would have to assume
19 Ms. Crane authored it since she did the work on it. I
20 don't have a date on that and there is nothing on either
21 side of this page which would indicate a date.

22 Q And if Ms. Crane said she never did any
23 interpretation of the CTT test other than as to
24 Mr. Simmons' known sample?

25 A I can't speak for Ms. Crane. She may have been

1 referring to the vaginal swab from MUSC or she may have
2 been been referring to the vaginal swab period. I don't
3 know what -- specifically how the question was asked of
4 her.

5 Q Ms. Crane did keep detailed notes about her work in
6 the Lifecodes file; correct?

7 A Yea, as far as -- yea.

8 Q And they're part of her file; right? They're part of
9 the Lifecodes file?

10 MS. BROWN: Objection, Your Honor. I don't believe
11 that he has the knowledge or expertise to answer that
12 question. That would be a Lifecodes file.

13 MR. YOUNG: He said---

14 THE COURT: If he knows, if he knows. Don't ask him
15 to speculate. Do you know? Ask the question do you
16 know -- I assume that y'all have taken Ms. Crane's
17 deposition. You've got her testimony. I don't know that
18 Mr. Bailey can interpret it any more than what she's
19 testified to.

20 MR. YOUNG: And we have, Your Honor, and I guess my
21 point being that there is a Lifecodes file that is in
22 evidence.

23 THE COURT: Correct.

24 MR. YOUNG: In that file there are a number of
25 worksheets that are handwritten on graph paper, many --

1 several of which are introduced again individually by the
2 applicant in this case and I'd like to show Mr. Bailey one
3 more of those pages --

4 THE COURT: Absolutely.

5 MR. YOUNG: -- which is in evidence already.

6 Mr. Bailey, this is Applicant's No. 21 which is page
7 150 out of the Lifecodes file that we previously
8 referenced the vaginal swab 84 being used up on January 15
9 prior to the CTT testing; is that correct?

10 THE WITNESS: Yea. You need to point that out to me
11 where it says it was used up.

12 Q Yes, sir.

13 A Yea. She's got a note saying no sample of 56384
14 left. 56384 is the vaginal swab from MUSC and let me see
15 if I can find the other vaginal swab here which is 56386.
16 Yea, apparently, she did have material to do the testing
17 on the vaginal swab from SLED. I don't see a similar note
18 here as you have for 56384.

19 Q Sure and I guess my purpose is not really the data,
20 but by issue of comparison that page is dated at the top
21 and the bottom?

22 A Yea.

23 Q It's signed?

24 A Yea.

25 Q By presumably the technician Laura Crane who was

1 doing the work. I think at that time she was Laura
2 Galbreath?

3 A Okay.

4 Q Is that correct?

5 A That she was Laura Galbreath?

6 Q That it was signed.

7 A Yea, it was signed. It can't read the signature, but
8 it is signed.

9 Q It's on graph paper?

10 A Yea.

11 Q And it has a line at the top for project and other
12 information to be entered about what testing is being done
13 and stuff like that?

14 A Yea.

15 Q This page is not---

16 THE COURT: This page being what?

17 Q This page which is Applicant's No. 20 which you
18 referred to as your reference point for the sample 386 is
19 not signed?

20 A That's correct.

21 Q It's not dated?

22 A Not signed, not dated.

23 Q And it's not on graph paper?

24 A Not on graph paper.

25 Q It doesn't in any way indicate that it's part of the

1 Lifecodes file?

2 A Other than the fact that it has information on it
3 that could have only come from Lifecodes because it wasn't
4 prepared by me or anybody in my office.

5 Q Okay. With regard to the sample 56386 we've, I
6 guess, agreed that the Kenneth Simmons blood should be a
7 10,12 on the CSF1P0 site?

8 A Yes.

9 Q Are there any other typos with regard to Mr. Simmons'
10 blood?

11 A Not to my knowledge.

12 Q With regard to the next sample down that was on the
13 exhibit that was given to the jury the last numbers of
14 which are 384, the inclusion of 10,11 under the CSF1P0,
15 that's another typo?

16 A Yea, it should be 10,12.

17 Q Well, it should not exist; right?

18 A I'm sorry. You're correct. There was no sample
19 done. It shouldn't exist. I was thinking 386.

20 Q And under---

21 A It should be 10,12.

22 Q And under the TPOX that should -- where it says 10,11
23 that's another typo. Those should not exist?

24 A I need to review this again.

25 Q Sure.

1 A I've been concentrating on the CSF1P0. Okay. You're
2 referring to the TP0X on 56386?

3 Q 384.

4 A 384, okay. Well, if she didn't do the sample there
5 shouldn't be anything on the last three.

6 Q And so the TH01,7,8 on that sample, that's another
7 typo?

8 A I wouldn't characterize it as a typo. I had
9 information at some point in time that these figures
10 belonged in that column. I can't tell you at this point
11 in time whether or not that's from a document that's not
12 in the file anymore or was the results of a telephone
13 conversation from somebody from Lifecodes. I can't -- as
14 I said before, I can't recall that at this time where that
15 came from.

16 Q And that's despite the fact that the sample did not
17 exist at the time that the CTT tests were done?

18 A Yea. I found out yesterday in talking to you that
19 the documentation in there saying the sample did not
20 exist.

21 Q Okay.

22 A That it didn't exist at the time these tests were
23 run.

24 Q So when you characterize it as not a typo you're
25 saying that you got information from somewhere but you

1 don't know what it was?

2 A I don't know what the source of information was other
3 than it came from Lifecodes in some form. I can't
4 remember whether that was a telephone conversation or
5 document. To my knowledge there is no document in the
6 file at this time that would indicate that.

7 Q Okay.

8 A I don't know have a specific recollection of the
9 telephone conversation; so by process of elimination what
10 I am saying is I had information from Lifecodes at the
11 time that I made this chart up, but I can't tell you
12 specifically where that information is or where it came
13 from.

14 Q Okay. And this sample is not referred to on
15 Applicant's No. 20 which is the other page that you have
16 been referred to --

17 A I don't --

18 Q -- regarding results?

19 A -- believe it is. I looked over a second ago and I
20 didn't see 384 on there.

21 Q If the information that you have was that this sample
22 384 was a 10,11 at the CSF1P0 -- you think that that
23 information was a typo; it should have been 10,12?

24 A Yea, I think it should have been a 10,12.

25 Q Because if it was 10,11 actually Mr. Simmons would be

1 excluded?

2 A Well, you have a typo on the blood and a typo on the
3 vaginal swab, but the documentation in the file from
4 Lifecodes for the blood and at least the vaginal swab that
5 they did do is a match to Kenneth Simmons. It is CSF1P0.

6 Q Okay.

7 A Both of the 10,11's are, in fact, 10,12's. It
8 indicates a match on the chart due to a typo, but if the
9 correct information had been put on there without the typo
10 you'd still have a match from the chart.

11 Q And right now I'm just talking about the 3847.

12 A Right.

13 Q The second line down under Mr. Simmons' known
14 standard?

15 A Yea.

16 Q Okay. And your testimony just so that I'm clear is
17 you had information from some source -- we don't know what
18 it was -- that that was tested and that the results from
19 that testing showed that the male fraction just included
20 Mr. Simmons which should have been a 10,12,10,11,7,8?

21 A That's correct. The time I prepared this chart 12
22 years ago I had information that would have had to come
23 from Lifecodes unless I misinterpreted something or
24 misunderstood something which is entirely possible which
25 led me to conclude that these figures belonged in that

1 chart.

2 Q Is it possible that you just incorrectly wrote
3 numbers under that male fraction spot without regard to
4 which sample you meant to include or you actually meant to
5 write results for 386, you accidentally wrote results for
6 384?

7 A I don't think so because I've got separate results
8 from 386 in the column they belong in.

9 Q Okay.

10 A Again, I've said this a couple of times, but at the
11 time I prepared the chart 12 years ago I had information
12 that in my mind at that time was that these figures --
13 that the testing was done on that swab 384 and these were
14 the correct figures.

15 Q Okay. And we don't know where that came from?

16 A I don't know where it came from.

17 Q It's not in any report from Lifecodes or part of the
18 Lifecodes file?

19 A Not that I've seen, but the file is -- at least my
20 file was missing from the solicitor's office for a period
21 of years. I don't know where it was or what; so I had no
22 control over the file after I left the solicitor's office
23 in 2003 or four, whenever it was.

24 Q Okay. Let's move down to the next sample that you
25 had results for on the CTT testing.

1 A Okay.

2 Q That would be sample F156386; is that correct?

3 A Yes.

4 Q And you wrote again 10,11.

5 A Yea.

6 Q And if that 10,11 is correct and Mr. Simmons actually
7 is a 1012 he would be excluded, but it's your recollection
8 that that is a typo?

9 A If he was actually -- yea.

10 Q You're indicating to the court that that should be
11 10,12?

12 A If, in fact, those figures were different on the
13 blood and on the vaginal swab, then he would be excluded,
14 but as I said earlier the documentation that I do have
15 from Lifecodes shows that at 386 the blood is a 10,12 and
16 the vaginal swab is a 10,12.

17 Q How about in the TPOX column, the next column over?

18 A In reference to the blood or the vaginal swab?

19 Q In reference to the vaginal swab. You say that
20 that's a 10,11?

21 A Yea. Now, on this chart -- and, again, I don't have
22 total recall of the specific information after preparing
23 the chart, but on the -- I don't have the exhibit number,
24 but the information on the last three tests that were done
25 on some of these items on the undated, unsigned paper it's

1 got 10,11. There is also a nine here which I'm not sure
2 what the nine indicates.

3 Q Are the 10 and 11 set apart in any particular
4 fashion?

5 A They're in parenthesis.

6 Q Does their being in parenthesis mean anything to you
7 with regard to the way that you prepared your chart?

8 A Not at this time.

9 Q There's a period of -- there is some parentheses at
10 the bottom of the chart that you prepared?

11 A Parentheses at the bottom of the chart?

12 Q Yes, sir.

13 A You need to show it to me, if you would.

14 Q Yes, sir.

15 A I don't see it right off the bat.

16 Q You see these parentheses right here?

17 A Yea. The reason -- This is not on my copy here.

18 Q Oh, I apologize. Well, there is an asterisk above;
19 right?

20 A Yea.

21 Q And there is an asterisk in the DQ Alpha testing at
22 two sites; right?

23 A Okay.

24 Q And you denote at the bottom that that indicates the
25 1.2 allele may be present?

1 A Right.

2 Q Consistent with the testimony?

3 A Yea.

4 Q And then there are several sites that are set off in
5 parentheses throughout the rest of the table.

6 A Okay.

7 Q And did that have any specific indication?

8 A Yea, it does now. I see that now. I did not -- I
9 don't recall what was in my mind at the time I did the
10 chart.

11 Q So the results that you have on this page show an
12 additional allele at the TPOX site and that being a nine?

13 A If that's an allele. I don't know what the nine
14 means at this time.

15 Q And the 10 and 11 is set off in parentheses?

16 A The 10 and 11 is in parenthesis. That's correct.

17 Q And at the next site TH01 --

18 A Okay.

19 Q -- for that sample --

20 A Yes.

21 Q -- there is an eight by itself; right?

22 A Right and a seven.

23 Q And a seven set off in parentheses?

24 A Yea.

25 Q That's not what you reflected on your chart?

1 A No, it is not. You're correct.

2 Q Okay. The missing nine and the missing
3 parentheses -- are those also typos taken off of this
4 page?

5 A They're not typos. That information was taken from
6 when we were trying to make this chart conform to be a
7 compilation of some of the other charts that were sent to
8 us in the reports. These two things here -- the asterisk
9 which indicates that 1.2 allele may be present and the
10 parentheses indicates allele of less intensity was on the
11 material that we got from Lifecodes; so that was lifted
12 off of that.

13 Q Okay. And you decided not to include that in the
14 chart that you prepared?

15 A I did not include it. Whether I decided to -- not to
16 include it or whether it slipped by or something, I just
17 -- I don't recall at this time.

18 Q Well, if somebody like a jury were just to look at
19 your chart which is what you and Ms. Crane went through it
20 would appear that Mr. Simmons' known blood was completely
21 represented in one sample that we know didn't exist and
22 exactly replicated in another sample that you have
23 handwritten notes for from another source to indicate that
24 they're not correct. Is that---

25 A Yea. I would agree with you that a jury could become

1 to some extent confused if they were to look at this and
2 rely on this to support Dr. Baird's statistical analysis.

3 Q And you repeatedly said with Ms. Crane, you know,
4 he's a match at all nine loci?

5 A I don't think I said that. I asked her if that was
6 correct. I think she said it was.

7 Q Well, she said that he couldn't be excluded as a
8 possible contributor to a mixture; is that right?

9 A If that's what the testimony is, that's what it is.
10 I am not disputing anything that's in the transcript.

11 MR. YOUNG: I am just trying to make sure I have the
12 exhibits in, Your Honor.

13 THE COURT: You got 19 and 20 in with this witness.
14 Nineteen is the letter. Twenty is the DNA.

15 MR. YOUNG: Your Honor, at this time I would offer
16 Applicant's No. 21 which is a page out of the Lifecodes
17 file for comparison with Applicant's 20 which is the
18 handwritten report.

19 MS. BROWN: Hasn't it already been entered?

20 MR. YOUNG: It has. I just wanted to keep them
21 together.

22 THE COURT: Any objection other than being a
23 duplicate?

24 MS. BROWN: No objection.

25

1 (WHEREUPON, Applicant's Exhibit No. 21 was admitted
2 into evidence.)

3 MR. YOUNG: Thank you. That's all the questions I
4 have.

5 THE COURT: All right. Are you going to have
6 anything on redirect, ma'am?

7 MS. BROWN: A few short questions, Your Honor. I
8 would anticipate maybe 15 minutes.

9 THE COURT: Okay. Hold on a second.

10 Madam Court Reporter, mainly, are you okay? Anybody
11 else need a bathroom break? Everybody all right?

12 All right. Go ahead.

13 MS. BROWN: Thank you, Your Honor.

14 REDIRECT EXAMINATION

15 BY MS. BROWN:

16 Q Mr. Bailey, I want to go back a minute to the chart
17 that you created. Had you ever seen all of those samples
18 and all of these results together in any chart when you
19 began to create this chart for trial?

20 A No. If I had I wouldn't have had to do the chart
21 myself.

22 Q And when you received the test results from Lifecodes
23 did you receive those results for all of the columns in
24 the chart for the individual samples?

25 A No.

1 Q So you always had the first portion and the results
2 and then the CTT, the last three columns --

3 A Uh-huh.

4 Q -- by separate portion?

5 A Yea.

6 Q So to put them together is not an accurate reflection
7 of what you received from Lifecodes; is that correct?

8 A I'm not sure I follow your question.

9 Q Okay. When Lifecodes -- according to the reports
10 that you received and your understanding of what was
11 coming from Lifecodes, when Lifecodes tested for a match
12 they did not -- they tested the first part of what you
13 have in your chart, not the last three?

14 A They tested -- initially tested the first six.

15 Q All right. And that was---

16 A That was sent to me as I recall in one typed-out
17 report showing everything that's on the chart.

18 Q Okay. And the initial statistical values,
19 everything, initially was based off the first part of the
20 chart, not the CT?

21 A That's correct.

22 Q Now, I'd like to ask you to refer back to the
23 February 2, 1998 report --

24 A Okay.

25 Q -- that you referenced in your direct.

1 A Yea.

2 Q In that report is the chart together for all the
3 columns that are reflected on your chart?

4 A It is for the victim's blood -- excuse me, for the
5 Defendant's blood only. It's got all nine of them
6 together.

7 Q That's all you received?

8 A That's all I received as far as a completed report.

9 Q And prior to that that January 23, 1998 report that
10 was previously entered as State's 1 do you have that in
11 your documents there?

12 A I don't have it where I can put my hands on it right
13 now. Are you talking about the initial report?

14 Q Yes, sir. I believe that State's 2, the February '98
15 report, shows amended or supplemental?

16 A Yea, it has additional report.

17 Q Additional?

18 A Yea.

19 Q Additional report. They didn't change anything, but
20 they added some information?

21 A They added information in regard to the last three
22 tests that were done.

23 Q Okay. I want to ask you to look---

24 A If I could just respond further, I mean---

25 Q Yes, sir.

1 A -- when they did the three tests on the blood the
2 CSF1PO, the TPOX, and the TH01, that information is
3 totally meaningless unless you take an evidentiary sample
4 to compare it with. Something else had to follow this for
5 this to have been of any use whatsoever.

6 Q Yes, sir. And is the reverse true? The calculations
7 without this would have been based on the first part of
8 the chart?

9 A Yea.

10 Q Okay. On the fourth page of the February 1998 report
11 there is a conclusion. I wondered if you would read that
12 short conclusion into the record.

13 A The combined frequency of occurrence of the profile
14 obtained by PCR DNA analysis from sample FB68555 is one in
15 1 billion 280 thousand 249 -- 208 million 249 thousand 916
16 in the Caucasian population.

17 Q I'm sorry, Mr. Bailey, to interrupt, but on the
18 fourth page the conclusion which talks about the analysis,
19 I'm not sure we have the -- we're on the same page.

20 A Okay. My February---

21 MS. BROWN: May I approach the witness, Your Honor?

22 THE WITNESS: My February report, fourth page.

23 MS. BROWN: Which volume is that, if you don't mind?

24 THE COURT: You want to take a little bit of time to
25 see if you can get it straightened out?

1 MS. BROWN: Your Honor, may we have a short break?

2 THE COURT: Sure. Let's take about a 10-minute
3 break.

4 (Whereupon, a break was taken.)

5 THE COURT: All right.

6 MS. BROWN: Thank you, Your Honor. Thank you for the
7 brief break in the proceedings.

8 Mr. Bailey, how many notebooks to you have in front
9 of you at this point?

10 THE WITNESS: Two.

11 Q Going back to the report dated February 2 of '98, is
12 there a copy of that report in volume two?

13 A Yes.

14 Q That you have before you?

15 A Yes.

16 Q Is there also a copy of that report in volume six?

17 A Yea. One of them had a page missing which is what
18 got me confused. The one I was referring to had a missing
19 page.

20 Q Have you located a page that has a conclusion at the
21 bottom?

22 A Yea.

23 Q And that conclusion I believe is three lines. Would
24 you mind reading them into the record real quick?

25 A The phenotypes obtained by PCR DNA analysis from

1 samples F156384 and F156386 from Lifecodes case number
2 256381 are consistent with originating from more than one
3 individual which does not exclude F156389 and FB68555 as
4 contributors.

5 Q Okay. So that conclusion refers to samples 56384.
6 Can you identify a corresponding number on your chart?

7 A 56384 is the vaginal swab and saline from MUSC male
8 fraction and F would be the female fraction.

9 Q And the 56386?

10 A 56386 would be the vaginal swabs from the --
11 initially that went the SLED taken from the victim at the
12 autopsy.

13 Q And the conclusion reflects according to PCR testing
14 he could not be excluded; is that correct?

15 A Right; that it's a mixture and neither the victim nor
16 the defendant could be excluded as contributors is the way
17 I understand it.

18 Q Mr. Bailey, if you would back up in that same report
19 two pages to section three that reflects results.

20 A Okay.

21 Q In your copy that you received from Lifecodes are
22 there two charts on that page on your results?

23 A Yes.

24 Q And that is referring to which sample?

25 A It is referring to all nine.

1 Q Which sample that you tested?

2 A Okay.

3 Q Was it 68555?

4 A 6855 -- Yea, FB6855 -- one page has 55, but it should
5 be 555.

6 Q And that would have been Mr. Simmons' sample?

7 A That would have been Mr. Simmons' known blood sample,
8 yea.

9 Q And the second box, does that reflect the three
10 columns that we've been talking about the CSF1P0, TPOX,
11 and the TH01?

12 A Yes.

13 Q And that's separated out and is that designated PCR
14 or CTT?

15 A Within the block I don't see a designation unless I'm
16 missing it.

17 Q Okay. And directly under that I believe it says
18 testing was performed?

19 A (No response.)

20 MS. BROWN: May I approach?

21 THE COURT: Yes, ma'am.

22 THE WITNESS: Okay. All right. I am back on the
23 right page now.

24 Q Okay. And the qualification under that separate box
25 for that testing reflects what kind of testing?

1 A It says test was performed using CTT multiplex kit.

2 Q Okay. So we have two different tests and two
3 different reports based on the two different tests coming
4 in from Lifecodes; is that correct?

5 A Yes.

6 Q And the conclusion points to the two samples that you
7 were asked about on cross coming from the male fraction;
8 is that correct? The conclusion says that does not
9 exclude Mr. Simmons?

10 A Right.

11 Q According to PCR testimony?

12 A That's correct.

13 Q I want to ask you to look back at Applicant's 19.
14 This is the letter that went to Lifecodes.

15 A Okay.

16 Q Is there anything in that letter requesting analysis
17 on the numbers that you combined?

18 A There is nothing in here requesting any additional
19 analysis.

20 Q You're still working off the analysis that you
21 received before which includes the charts that we just
22 went over?

23 A Yea. I don't recall getting any other.

24 Q Okay. Is there anything in that letter refresh your
25 recollection to where you actually did talk to Ms. Crane

1 before trial that you recall?

2 A Give me a second to review it.

3 Q Sure.

4 A Well, it doesn't come right out and say that we had a
5 conversation, but the first sentence is my understanding
6 is I should have the testimony with regards to
7 probabilities coming from Dr. Baird. That would reflect
8 either conversation I had with Ms. Crane or Dr. Baird and
9 that was just to confirm my understanding that's how they
10 wanted to split up the testimony.

11 Q So it was trial preparation?

12 A Yea.

13 Q As far as who was going to testify to what?

14 A Right, yea.

15 Q Now, Mr. Bailey, you were asked about your question
16 to Lauren Crane during trial as whether the DNA profile on
17 Kenneth Simmons' blood in all nine loci or locations
18 there. Do you recall discussing that on cross
19 examination?

20 A Yea.

21 Q Okay. And the record would reflect and it's part of
22 the proceedings here her answer is, Basically, what we
23 found was a mixture of DNA which we could not eliminate
24 Kenneth Simmon's blood as being a contributor to.

25 A Right.

1 Q In your opinion is that consistent with the
2 conclusion in the February report?

3 A Yes.

4 Q And just lastly, Mr. Bailey, do you recall your
5 closing argument in this case regarding the DNA?

6 A Not specifically, no.

7 Q Would it help to briefly review the transcript?

8 A Yea.

9 Q May I approach, Your Honor?

10 THE COURT: Why don't we narrow it down to where
11 we're going? I'm sure his closing is more than a minute
12 or two?

13 MS. BROWN: Yes, Your Honor. In fact, I could read
14 just a portion of it if that would be---

15 THE COURT: That would be great.

16 MS. BROWN: Closing argument by Mr. Bailey on page
17 2012 of the record -- a portion of the argument---

18 THE COURT: Hold on one second. Everybody together?

19 MR. YOUNG: Yes, sir.

20 THE COURT: All right.

21 Q He's not excluded in the frequency occurrence that
22 Kenneth Simmons' blood in the black population is one of 8
23 million 29 thousand 316 and, again, I am not asking y'all
24 for a conviction based on DNA. DNA merely corroborates
25 Kenneth Simmons' testimony -- the confession where he says

1 he raped her. Now if you really want to stretch the
2 imagination of these DNA figures you might say somebody
3 else could have had that same DNA profile. I guess that's
4 conceivable, but the only person that that is consistent
5 with consistent DNA profile that confessed to raping Lilly
6 Boyd is Kenneth Simmons. That's one in the world -- and
7 it goes on to argue.

8 What I wanted to ask you about that, do you recall
9 making that argument, Mr. Bailey?

10 A I do now that you refreshed my memory with it.

11 Q So your argument did not rely solely on some kind of
12 DNA analysis that was 100 percent positive, did it?

13 A That's correct.

14 Q And you tied it to that confession?

15 A Yes.

16 Q And it was something used to exclude other people?

17 A Yes.

18 Q And you had other suspects in this case where you
19 received reports they've been excluded?

20 A Yes.

21 Q Let me ask you just in closing if you had this same
22 evidence and the statistics were recalculated where you
23 had a one in 500 probability or one in 419 or even a one
24 in 172, would you still use this evidence as an exclusion
25 based on your experience?

1 MR. YOUNG: Your Honor, I'm going to object based on
2 speculation of that.

3 THE COURT: You can answer it.

4 THE WITNESS: I would have used the same argument,
5 the same evidence.

6 MS. BROWN: Court's indulgence for just a moment. No
7 further questions, Your Honor.

8 THE COURT: Thank you. You may step down. May he be
9 excused?

10 MR. ZELENKA: No objection.

11 MR. YOUNG: No objection.

12 THE COURT: Good to see you. Happy Holiday Season.

13 THE WITNESS: Thank you. Merry Christmas.

14 THE COURT: Any of that yours?

15 THE WITNESS: That's all theirs.

16 THE COURT: Thank you. Next witness.

17 MR. ZELENKA: No further witnesses, Your Honor.

18 THE COURT: All right. You want to now talk about
19 the introduction of the -- What is it, Richard Leo depo?
20 Which one was it? Richard Leo depo and why you object to
21 it.

22 MR. ZELENKA: I made the formal objection at the time
23 of the deposition. I can provide that to you and refer to
24 it directly or summarize it.

25 THE COURT: Why don't you summarize it?

1 MR. ZELENKA: Basically, I asserted that the
2 objection was being done pursuant to Rule 702, 403, and
3 the evidence Rule 104 with respect to the preliminary
4 questions. Under Bregoli versus United States the
5 admission of evidence -- expert evidence -- must be
6 established by preponderance. Objection under Rule 702
7 was also done in reliance upon the opinion of State versus
8 Jones, a 2009 opinion, which acknowledges that Rule 702
9 for the admission of expert testimony if it's scientific,
10 technical, or other specialized knowledge that would
11 assist the trier of fact to understand the evidence or to
12 determine a fact at issue.

13 We asserted under those procedures and under Council
14 versus State and State versus Jones they hadn't addressed
15 the admissibility of an expert in false confessions and we
16 cited some opinions which had held that such testimony is
17 not properly scientifically based and it should be
18 excluded because it rests within the exclusive province of
19 the jury to make an opinion about the believability of a
20 particular witness's testimony or of a particular fact and
21 cited cases Vent versus State out of Alaska, a 2003
22 opinion, holding that expert testimony and the subject of
23 false confessions can be unreliable; therefore,
24 inadmissible, State versus Cobb, a Kansas opinion out in
25 2002.

1 THE COURT: Do you have any South Carolina opinions
2 because I know we've had---

3 MR. ZELENKA: No.

4 THE COURT: -- people testify as to false convictions
5 in this courtroom.

6 MR. ZELENKA: No, we don't have any South Carolina
7 opinions specifically that address that point.

8 THE COURT: Well, normally, when I get this -- Strike
9 that. Go ahead and finish your...

10 MR. ZELENKA: That's basically it, the major
11 province.

12 THE COURT: You know, in light of State versus Jones
13 and Council -- by the way, I am appointed -- assigned to
14 State versus Jones to be tried the third time in Lexington
15 shortly. When I get those type of objections normally I
16 have to have a proffer to see exactly what they're saying
17 and what their relying on and what their opinions are
18 before I can rule. What I think I'll probably have to do
19 in this situation is read the testimony and if I feel like
20 it doesn't comply with Jones and Council I'll exclude it.
21 If I feel like it does, I'll overrule your objection. Go
22 that way. That's the only way I can handle it.

23 MR. ZELENKA: I understand that, Your Honor.

24 THE COURT: Yes, ma'am?

25 MS. PAAVOLA: Your Honor, may I comment briefly on

1 this objection?

2 THE COURT: Absolutely.

3 MS. PAAVOLA: First of all, Mr. Zelenka's initial
4 statement of the status of Dr. Leo's testimony is not
5 accurate. His affidavit was admitted at the PCR hearing
6 by stipulation as Defense's Exhibit No. 2 and they
7 requested the deposition to cross examine him which the
8 court granted permission for them to notice and take his
9 deposition and they did so and he did not testify during
10 that deposition that Mr. Simmons' confession wasn't true.
11 He testified about reliability factors that he had
12 evaluated in the case and that does not go to the ultimate
13 issue. It goes to those surrounding circumstances and the
14 reliability of the statement that he gave.

15 THE COURT: Thank you. I'll read the deposition as
16 if it were a proffer and then I'll have to decide whether
17 it meets Council and Jones, et cetera.

18 MR. MORTON: Your Honor, I believe it's been
19 addressed in State versus Myers; is that right?

20 MR. ZELENKA: Not in this instance, I don't believe.
21 I would also assert that necessarily we're looking at this
22 two ways: One, the false confession issues as it relates
23 to the investigation of the case and the matters that
24 counsel should have looked at in preparation to present
25 objections to the admission of the confession and whether

1 testimony like Dr. Leo's would have been able to have been
2 presented free-standing before the jury; so those are two
3 different settings that is being presented.

4 THE COURT: Thank you. Now, lady---

5 MR. ZELENKA: Court exhibit?

6 THE COURT: Certainly, make it a court exhibit.

7 THE COURT: Court Exhibit 1 for purposes of the
8 December 15, 2011 hearing.

9 (WHEREUPON, Court's Exhibit No. 1 was marked for
10 identification only.)

11 THE COURT: Now, let me talk to the state first.
12 What else do we need to do as far as making a record in
13 the case on behalf of the state?

14 MR. ZELENKA: Nothing else as I understand it. The
15 transcript of the original trial -- the appellate record
16 is before this court. That would be it, Your Honor. We
17 need to resolve the location of the exhibits from the
18 earlier proceedings.

19 THE COURT: Well, I will ask that---

20 MR. ZELENKA: Oh, we have -- but that's an objection
21 -- we were talking about the affidavits that have been
22 presented by the defense. That would still need to be
23 addressed, but that's not part of the state's case.

24 THE COURT: All right. So other than ascertaining
25 where the original exhibits are which I assume they're in

1 the clerk's office in Dorchester -- we can make that
2 phonecall or I can get one of y'all to do that -- you have
3 completed your presentation or whatever?

4 MR. ZELENKA: Yes, Your Honor.

5 THE COURT: Who wants to speak on behalf of the
6 applicant?

7 MS. PAAVOLA: Your Honor, I have two matters. One
8 matter that has yet to be resolved is the reply affidavit
9 we we filed for the court's consideration along with the
10 memorandum in support. Previously we had a discussion---

11 THE COURT: That's the affidavit of?

12 MS. PAAVOLA: Dr. Word and Dr. Cotton. They are
13 willing and available to testify live or by deposition,
14 whatever the court desires. We're content to rely on
15 their affidavit as direct evidence, but if the court
16 prefers something other than that we can make them
17 available or if the state wishes to cross examine them by
18 some method we'd be happy to do that as well.

19 THE COURT: Other than that do you have anything
20 left?

21 MS. PAAVOLA: We have no further evidence. We do
22 have one motion.

23 THE COURT: Okay. Mr. Zelenka, what is y'all's
24 position on the affidavits of those two -- or, Mrs. Brown,
25 those who proposed witnesses?

1 MS. BROWN: Your Honor, we certainly acknowledge that
2 this court can accept affidavits in these cases.

3 THE COURT: Well, let me ask you this. If I accept
4 them to make it a record do you want on behalf of the
5 state an opportunity to cross examine those two witnesses?

6 MS. BROWN: If you would accept them, yes, Your
7 Honor, we would like some way to cross examine, some way
8 to challenge their testimony. We haven't had that at this
9 particular point, but I would urge the court not to accept
10 it for this reason. These are very comprehensive
11 affidavits. These aren't just affidavits on a fact issue
12 that can be easily resolved in a page or two.

13 These are basically argument affidavits and probably
14 the thing that's most troubling about these particular
15 affidavits are the affiants say clearly, plainly they
16 don't have a lot of information. They don't have enough
17 information, but yet they've got a lot of conclusions
18 about what they term critical problems. A lot of that---

19 THE COURT: Is this dealing with DNA or is it dealing
20 with the mental retardation?

21 MS. BROWN: DNA, Your Honor. For example, the
22 affiants make reference to the chart that we discussed
23 today, and, of course, now we've determined according to
24 Mr. Bailey's testimony that he created that chart, but
25 they're attributing it to Lifecodes; so we have a lot of

1 back and forth. We have some credibility assessments made
2 by the affiants to opine that there are issues in the DNA
3 reports. They've attributed reports to Lifecodes that
4 Mr. Bailey says actually is his chart and they are
5 internally inconsistent as well; so based on the fact that
6 this is more argument and not supported based on the
7 assertions of the affiants themselves we would urge the
8 court not to accept these particular affidavits.

9 THE COURT: All right.

10 MS. PAAVOLA: Your Honor, may I respond?

11 THE COURT: Yes, ma'am.

12 MS. PAAVOLA: First of all, the affidavit was filed
13 before the court and served on the state in March. The
14 state has never objected until this point and at the time
15 we filed the memorandum with the affidavit we indicated
16 that if there was any objection to having the affidavit
17 admitted we would be prepared to bring them here to
18 testify with the---

19 THE COURT: Where are they from?

20 MS. PAAVOLA: They are from the DC area. One expert
21 is from Maryland and the other one is from the Baltimore
22 area and they're both ready and willing to come and
23 testify if that's what the court prefers. That would be
24 fine with us.

25 THE COURT: You know, also, the court is cognizant of

1 expenses involved in these things, but if I am going to
2 accept them I think the state should have the right to
3 cross examine them. I think probably the most efficient
4 way to do that would be by deposition if that would
5 satisfy the state as far as cross examining.

6 MS. BROWN: Yes, sir. If I understand the affidavits
7 would not be accepted, then we would just take testimony.

8 THE COURT: Well, if we do that then, obviously, the
9 applicant would have the opportunity to put him up as if
10 it were a witness and you would have the right to cross
11 examine him in the deposition. Probably if we're going to
12 go -- if we're going to make the effort to allow you to
13 cross examine him, it would probably be a better way to do
14 it would just be -- not by affidavit, but by direct
15 testimony on cross examination like you do in a trial
16 setting.

17 MS. BROWN: Your Honor, I think I may have an offer
18 of a solution if I may have one moment to confer with
19 co-counsel.

20 THE COURT: Sure.

21 MS. BROWN: Your Honor, we'd be okay with just the
22 cross examination.

23 THE COURT: Let them put in the affidavit?

24 MS. BROWN: Yes, sir.

25 THE COURT: When you think -- This is Christmas time,

1 Holiday time. Give me some timeframe, ladies, when we
2 could anticipate doing that. Ma'am?

3 MS. PAAVOLA: Your Honor, they've told me they're
4 generally available and since it would be a deposition
5 they don't have to travel I think, you know, it could
6 easily be done early after the first of the year.

7 THE COURT: All right. Try to get it done before
8 February 1. Is that a workable solution?

9 MS. BROWN: Yes, sir. We appreciate it.

10 THE COURT: Ma'am, by February 1?

11 MS. PAAVOLA: Yes, sir.

12 THE COURT: All right. Now, you want to wait and
13 make your motion after we've had those -- that cross
14 examination and I rule on the Leo deposition probably
15 would be the best way to do it or...

16 MS. PAAVOLA: I'm happy to make it now. I don't know
17 if we'll be back before you; so whatever you prefer is
18 fine.

19 THE COURT: I am available whenever wherever. What
20 type of motion is it?

21 MS. PAAVOLA: It is a very brief motion, Your Honor.
22 If you would just like to hear the basis now, I'm be happy
23 to explain it.

24 THE COURT: I can just take it under advisement until
25 we get everything.

1 MS. PAAVOLA: All right. The applicant would move at
2 this time to amend the application to conform with the
3 facts offered so far in this hearing. We would like to
4 amend to include a separate ground for leave under South
5 Carolina Code Section 17-27-20(a)(4.)

6 THE COURT: Which is?

7 MS. PAAVOLA: Which is a person may institute a PCR
8 proceeding who has been convicted of or sentenced for a
9 crime who claims that there exists evidence of material
10 facts not previously presented and heard that requires
11 vacation of the conviction or sentence in the interest of
12 justice and we would seek to make that an amendment on the
13 basis of the DNA claim which is currently plead as an IAC
14 claim and a Brady claim; however, based on the testimony
15 from Mr. Bailey today it seems that the state is
16 suggesting that although several mistakes were made at the
17 trial it's not anybody's fault because Mr. Bailey relied
18 on the lab and to the extent that the court might consider
19 an argument that the lab is not sufficiently a state actor
20 we believe that we still have a cognizable ground for
21 relief on the DNA claim because this is evidence that was
22 not previously litigated and it clearly is material to
23 both the conviction and sentence in Mr. Simmons' case.

24 THE COURT: The state's position on the motion to
25 amend to include that code section.

1 MS. BROWN: Your Honor, we leave it to the court's
2 discretion.

3 THE COURT: All right. I'll grant that. That sort
4 of makes it a complete process or procedure. Anything
5 else?

6 MS. BROWN: Nothing from the state, Your Honor.

7 THE COURT: Well, here is -- You know, obviously,
8 this is a very -- I am trying to think of the correct
9 word -- I guess interesting is as good as any and
10 certainly challenging issue, particularly on the mental
11 retardation claim and, obviously, the DNA claim has gotten
12 a little more traction that will require a lot of thought
13 on my behalf; so what I'd like to do is let's get these
14 other two depositions in and give me some time to review
15 everything and then I am going to probably ask for some
16 type of either final memo or some type of final proposed
17 order or something of that nature; so let's get through
18 the first of the year and get that last two depositions
19 done -- the last two depositions done and then we'll be in
20 a position to try to wrap it up. I'll rule on the
21 admissibility of Richard Leo's testimony from there.

22 I would ask, Ms. Brown, if you would, please take the
23 original exhibits to -- Well, strike that.

24 (Whereupon, the Court Reporter speaks with the
25 Court.)

1 THE COURT: My Court Reporter says that proper
2 procedure is she'll make an itemization or schedule of
3 what's been introduced today. She turns it over to our
4 Clerk of Court who will in turn -- I instruct Mr. Hiers to
5 please quickly send them on to the Clerk of Court in
6 Dorchester County with the case number, et cetera.

7 THE CLERK: Yes, sir.

8 THE COURT: If you'll come up to my office we'll
9 draft a letter.

10 THE CLERK: It will be fine.

11 THE COURT: All right. anything else by the state?

12 MS. BROWN: No, Your Honor.

13 MS. PAAVOLA: No, Your Honor.

14 THE COURT: All of you have a wonderful Holiday
15 season. For the record I am going to retain the
16 deposition that was made a court exhibit of Mr. Richard
17 Leo so I can go ahead and review that. We'll get that to
18 Dorchester when I complete that.

19 (End of Transcript of Record.)

20

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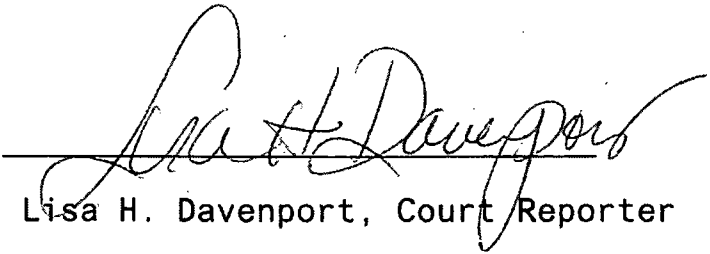
CERTIFICATE OF REPORTER

State of South Carolina)
County of Aiken)

I, Lisa H. Davenport, Official Court Reporter for the Second Judicial Circuit of the State of South Carolina, do hereby certify that the foregoing is a true, accurate and complete Transcript of Record of the proceedings had and evidence introduced in the trial of the captioned case, relative to appeal, in the Court of Common Pleas for Aiken County, South Carolina, on the 15th day of December, 2012.

I do further certify that I am neither of kin, counsel nor interest to any party hereto.

November 30, 2012


Lisa H. Davenport, Court Reporter

The State of South Carolina**OFFICE OF SOLICITOR
First Judicial Circuit**

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WALTER BAILEY

Solicitor
21 December 1998

Lauren Galbreath Crane, M.S.
Senior Forensic Scientist
LifeCodes Corporation
550 West Avenue
Stamford, Connecticut 06902

IN RE: STATE OF SOUTH CAROLINA VS. KENNETH SIMMONS
LIFECODES CASE # 56381 / AGENCY REFERENCE # 96-14607

Dear Ms. Crane:

It is my understanding that I should have the testimony with regard to statistical probabilities come from Dr. Baird. I intend to call him first to testify about Lifecodes and DNA in general and then call you to testify about the handling of evidence and the DNA analysis in this case and then call Dr. Baird a second time regarding the statistics. I am enclosing herewith a draft of the proposed testimony for both of you. I would greatly appreciate both you and Dr. Baird reviewing your testimony and either faxing back any proposed changes or giving me a call to discuss any changes. I am also enclosing a chart which I prepared which I would like you to review.

Also, this will confirm our telephone conversation in which you agreed to send me copies of the original evidence containers for the following items: FI56383-61 - oral swabs in saline; FI56384-62 - vaginal swabs in saline; FI56386-64 - vaginal swabs; FI56388-66 - oral swabs; FI56389-67 - blood standard of Lillie Bell Boyd; and FB68555-60 - Kenneth Simmons blood.

Please do not hesitate to contact me with any questions or concerns.

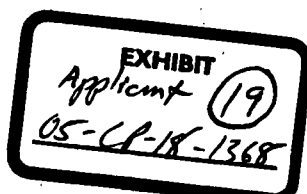
Thank you for your assistance and cooperation in this matter.

Sincerely,

Walter Bailey, Jr.
Walter M. Bailey, Jr.
Solicitor

WMBJR:jgh

Enclosures: As stated



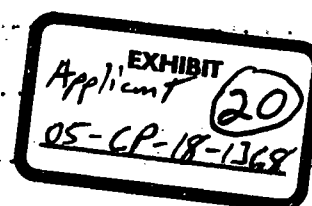
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Summa Standard 68555	10, 12	10, 11		7, 9
Day Standard 56389	10, 12	9		8
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67520	10, 13	8	11	7
67522	11, 12	8		7, 8
67517	11, 12	8		7, 8



PROJECT

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1/5/93

Tag- 0428K

amplify for CTR Phomega STES

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Sample	VOL	I.D	TOTAL VOL	CITRULLER	Power	Watts
67176	5u	67176CTP	50u	5	5	35u
67177	5u	67177CTP	50u	5	5	35u
67178	5u	67178CTP	50u	5	5	
67179	5u	67179CTP	50u	5	5	
67518BT	5u	67518BTCTP	50u	5	5	
67518BT	5u	67518BTCTP	50u	5	5	
67520	5u	67520CTP	50u	5	5	
67522	5u	67522CTP	50u	5	5	
68065	5u	68065CTP	50u	5	5	
67519F	5u	67519FCTP	50u	5	5	
68085F	5u	68085FCTP	50u	5	5	
68391F	5u	68391FCTP	50u	5	5	
67520F	5u	67520FCTP	50u	5	5	
67522F	5u	67522FCTP	50u	5	5	
68391	5u	68391CTP	50u	5	5	
67624	5u	67624CTP	50u	5	5	
67625	5u	67625CTP	50u	5	5	
563844	5u	563844CTP	50u	5	5	
56386	5u	56386CTP	50u	5	5	
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NOTE: NO SAMPLE 56384 left

DDA PM Amp

SAMPLE VOL

67624 2u

67625 2u

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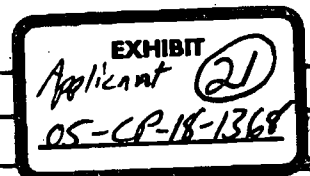
Read and Understood By

Signed

Date

1/15/93

Signed



KENNETH SIMMONS,

VS.

Respondent.

Case No.
2005 CP 18-1368

Taken: By the Respondent
Pursuant to Notice

Date: September 24, 2010

Time: Commencing at 10:14 a.m.

Place: DNA Diagnostics Center
One DDC Way
Fairfield, Ohio 45014

Before: Susan M. Gee, RMR, CRR
and
Christopher Kremer, CLVS
Notaries Public - State of Ohio

ORIGINAL

1
2 APPEARANCES:

3 On behalf of the Applicant (via Skype):

4 Boyd Young, Esq.

5 and

6 Emily Paavola, Esq.

7 of

8 Death Penalty Resource Center

9 P.O. Box 11311

10 Columbia, South Carolina 29211

11 Phone: (803) 765-1044

12 Email: emily@deathpenaltyresource.org

13 On behalf of the Respondent (via Skype):

14 Donald Zalenka, Esq.

15 and

16 Melody Brown, Esq.

17 of

18 South Carolina Attorney General

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20 Columbia, South Carolina 29211

21 Phone: (803) 734-3601

22 Email: agdzalenka@ag.state.sc.us

23 Also Present (via Skype):

24 Steve Lambert

25 - - -

I N D E X

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MICHAEL LEONARD BAIRD, Ph.D.

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- - -

1 VIDEOGRAPHER: We're on the record. The
2 time is 10:14. Will the attorneys present
3 please introduce themselves?

4 MR. ZALENKA: My name is Don Zalenka,
5 Assistant Deputy Attorney General, South
6 Carolina Attorney General's Office, representing
7 the respondent State of South Carolina.

8 MR. YOUNG: My name is Boyd Young,
9 representing Kenneth Simmons.

10 MR. ZALENKA: Those will be the only
11 counsel appearing on the record.

12 VIDEOGRAPHER: Will the court reporter
13 please swear in the witness?

14 MICHAEL LEONARD BAIRD, Ph.D.
15 of lawful age, a witness herein, being first duly sworn
16 as hereinafter certified, was examined and deposed as
17 follows:

18 VIDEOGRAPHER: You may begin.

19 DIRECT EXAMINATION

20 BY MR. ZALENKA:

21 Q. Dr. Baird, state your name for the
22 record, please.

23 A. Michael Leonard Baird, B-a-i-r-d.

24 Q. Dr. Baird, where are you currently
25 employed?

1 A. I'm employed at DNA Diagnostics Center.

2 Q. Okay. How were you employed from 1996 to
3 1998?

4 A. I was employed at Life Codes --

5 Q. 1999. Excuse me.

6 A. I was employed at Life Codes Corporation,
7 located in Stamford, Connecticut.

8 Q. Did you hear that?

9 A. I did. Did you not hear my answer?

10 Q. No.

11 A. I was employed during that time period at
12 Life Codes Corporation in Stamford, Connecticut.

13 Q. Okay. And as part of, as part of that
14 responsibility, were you involved in the case of State
15 versus Kenneth Simmons?

16 A. Yes. I was the laboratory director at
17 that time, and I was the laboratory director of the
18 testing done in both paternity and forensics.

19 Q. Okay. Did you testify in Mr. Simmons'
20 trial in March 1999?

21 A. Yes.

22 Q. Have you had the opportunity to review
23 your testimony?

24 A. Yes, I have.

25 Q. Have you had the opportunity to review

1 the test reports that were done by Life Codes in 1998?

2 A. Yes.

3 Q. Subsequent to your testimony in the 1999
4 trial, briefly describe any employment experience and
5 changes you've had since that trial.

6 A. I was employed at Life Codes Corporation
7 through April of 2002. I then left Life Codes
8 Corporation and joined DNA Diagnostics Center in
9 Fairfield, Ohio, in September of 2002 and have been
10 employed at DNA Diagnostics Center ever since.

11 Q. Okay. Since the 1999 trial, have you
12 testified as an expert in the area of population
13 genetics?

14 A. Yes. My response is yes. I don't know
15 whether you heard me or not.

16 Q. We did not hear you.

17 A. Okay.

18 Q. And have you been employed by defendants
19 and prosecutors in the matter since 1999?

20 A. Yes. If you didn't hear me, the answer
21 is yes.

22 Q. Okay.

23 A. I'm sorry. This speakerphone may not be
24 working as well as I had hoped.

25 MR. YOUNG: You can go back to the

1 computer, if it's easier to hear.

2 A. I was going to suggest that maybe that
3 might be -- I'm gonna put the speakerphone on mute. I'm
4 gonna unmute the Skype. Does that sound better? Can
5 you hear me okay? It sounds like you can't hear me.

6 MR. YOUNG: We can hear you. I just had
7 our mike muted.

8 THE WITNESS: Okay. Is that better?

9 MR. ZALENKA: I just hung up the
10 telephone.

11 MR. YOUNG: Is that better?

12 THE WITNESS: I think it works better,
13 actually, for me. Hopefully, that'll --
14 hopefully, that'll pick up the sound better. I
15 think, for some reason, this phone wasn't
16 picking up single words. So you can hear me
17 okay?

18 MR. ZALENKA: Yes.

19 THE WITNESS: Okay.

20 BY MR. ZALENKA:

21 Q. Briefly describe the responsibilities you
22 had with Life Codes in 1996 through 1999 concerning the
23 Kenneth Simmons case.

24 A. As laboratory director, I supervised the
25 personnel that were conducting DNA testing. In this

1 particular case, that was Lauren Crane, C-r-a-n-e. I
2 also helped prepare the reports that were generated by
3 Ms. Crane during the testing and, also, expert testimony
4 when required.

5 Q. Okay. And the particular reports that
6 you prepared in this case, State's Exhibit Number 1,
7 which was the January 23, 1998, Life Codes report and
8 State's Exhibit Number 2, the February 2, 1998, Life
9 Codes report; is that correct?

10 A. Yes.

11 Q. Have you had the opportunity to review
12 those reports prior to your deposition today?

13 A. Yes, I have.

14 Q. Dr. Baird, let me go into one brief area
15 that I meant to begin this proceeding with. Under South
16 Carolina rules of evidence, you have the opportunity and
17 are allowed to review your deposition before it becomes
18 an official part of the record to make corrections on
19 grammar and spelling of words. You have the
20 opportunity, if you choose to do so, to waive that, and
21 that can be done during this deposition. Otherwise, the
22 court reporter would be required to provide you a copy
23 and for you to make any corrections to that deposition
24 before it is submitted to the court. Would you like to
25 sign your deposition before it's submitted or would you

1 like to waive that opportunity?

2 A. I would like to review it and sign it
3 after I've reviewed.

4 Q. Okay. Now, going back to the reports and
5 the testimony that you gave in this particular case,
6 prior to the preparation of the reports, did you review
7 the matters with Miss Crane and her assessment of the
8 test data that she had taken?

9 A. Yes.

10 Q. Did you concur with Miss Crane's
11 interpretation of the test data prior to the testimony
12 you gave?

13 A. Yes, I did.

14 Q. With respect to the opinion that you gave
15 in this case, you treated it as if it was a mixture but
16 only had two individuals involved, the victim and the
17 other individual; is that correct?

18 A. Yes.

19 Q. Why did you not utilize data that
20 suggested other individuals could have also been
21 involved in that particular sample, what was tested?

22 A. Based on the data that we obtained from
23 the testing, it was consistent with it being a mixture
24 of the victim and the suspect.

25 Q. Have you reviewed Dr. Steve Lambert's

1 testimony?

2 A. Yes, I have.

3 Q. Did you review Plaintiff's Exhibit,
4 Applicant's Exhibit Number 13, which was provided to
5 you, attempted to be provided to you by e-mail last
6 night, but I understand it was provided to you this
7 morning by Boyd Young? Did you review that data?

8 A. I did. I got an e-mail from Mr. Young
9 this morning that had two PDFs and a PowerPoint in it.
10 If that's the material you're talking about, yes, I did
11 look at that.

12 Q. That is. With respect to your
13 interpretation of that data, have you reconsidered and
14 re-reviewed your numbers for that combined frequency of
15 occurrence?

16 A. Yes.

17 Q. Are you satisfied with the numbers as you
18 provided in the February 2, 1998, report and your
19 testimony at trial?

20 A. Yes.

21 Q. In reviewing those materials, Life Codes
22 did a DQ alpha test, correct?

23 A. Yes.

24 Q. A polymarker test, correct?

25 A. Yes.

1 Q. And a CCC test, correct?

2 A. CTT, yes.

3 Q. CTT test?

4 A. Yes. That's correct.

5 Q. And in your report, you concluded that
6 the combined frequency of occurrence on the data was one
7 in 8,029,316, correct?

8 A. Yes.

9 Q. Is the frequency of occurrence numbers
10 that you used on each of the individual sites, is that
11 consistent today with the manner that it would have been
12 done in 1998?

13 A. Yes.

14 Q. Is the opinion that you gave in 1999 to
15 the Court of General Sessions in Dorchester County, was
16 that consistent with your standards and your area of
17 expertise?

18 A. Yes.

19 Q. And is that consistent with the field, as
20 you understand it?

21 A. Yes.

22 Q. In the report that you gave to the State
23 of South Carolina, why did you not include other
24 possibilities that may have also contributed in the
25 mixture as suggested by the applicant in this case for

1 there being two or more individuals involved?

2 A. The statistics that were given were from
3 a single source individual. Again, consistent with the
4 results obtained, it appeared to be a mixture of two
5 individuals that included both the victim and the
6 suspect.

7 Q. In reviewing those reports, are you of
8 the opinion that you have anything to correct from your
9 February 2, 1998, report and your trial testimony in
10 1999?

11 A. No.

12 Q. In reviewing the data that was prepared
13 by Lauren Crane, are you still satisfied with her
14 interpretation of those results?

15 A. Yes, I am.

16 MR. ZALENKA: I don't believe I have any
17 further questions at this time. Please answer
18 any questions by the applicant, Mr. Young.

19 CROSS-EXAMINATION

20 BY MR. YOUNG:

21 Q. Good morning, Dr. Baird.

22 A. Good morning.

23 Q. I'm going to start off with referring you
24 back to what was State's Exhibit Number 1, which was the
25 initial report dated January the 23rd, 1998. Do you

1 have that report?

2 A. Yes, I do.

3 Q. On Page 3 of that report, it calculates
4 what is alleged to be the frequency of occurrence of a
5 phenotype obtained from sample FB 68554?

6 A. That is correct.

7 Q. Is that correct? That is the vaginal
8 swab, correct?

9 A. That is correct.

10 Q. And you came to the conclusion that it
11 had a combined frequency of occurrence of one in 81,103?

12 A. That's what's stated in the report, yes.

13 Q. Do you have a calculator?

14 A. Yes. That's actually off by a factor of
15 10. It should have been one in 8,110.

16 Q. Okay. So that number is misreported?

17 A. That's an incorrect number, yes.

18 Q. The jury was never told that that was an
19 incorrect number?

20 A. No, they were not told that, because,
21 really, when the other testing that was done in this
22 case, the CTT testing was done, a new calculation was
23 performed which corrected that incorrect number that was
24 in the report from January 23rd, 1998.

25 Q. When you correct a number, are you

1 supposed to do a report indicating that there was a
2 miscalculation previously and it has been corrected in
3 the supplemental report?

4 A. Our policy at that time was to make any
5 corrections with an additional report, which is what we
6 did on the February 2nd, 1998, report.

7 Q. So there's nothing in your file
8 indicating that that was a calculation error and it has
9 been corrected. All you have is a new number and a
10 subsequent report?

11 A. The subsequent report that includes the
12 appropriate calculation for the frequency of occurrence
13 of the genetic markers that were tested.

14 Q. This number, the one in 8100 or 8110,
15 that's the frequency of Mr. Simmons' DQ alpha profile?

16 A. It's actually the frequency of his DQ
17 alpha and polymarker profile together.

18 Q. I misspoke. Correct.

19 A. And this is from a black population.

20 Q. Right. All six sites, the DQ alpha site,
21 plus the polymarker sites?

22 A. That's correct.

23 Q. This frequency is not the frequency of
24 possible contributors to the unknown sample, which would
25 actually be 68554?

1 A. That is correct. That's just the
2 frequency of the profile from the suspect in this case.

3 Q. Okay. And his number is 68555?

4 A. Yes.

5 Q. Now, between the January 23rd, 1998,
6 report and the February 2nd, 1998, report, what
7 occurred?

8 A. Additional testing was performed using
9 PCR analysis to look at some additional genetic markers,
10 which are known as CTT.

11 Q. Okay. Have you reviewed the color charts
12 that I sent you regarding the gels from the CTT test?

13 A. I did look at them, yes.

14 Q. Did you ever -- and I'm sorry. I want to
15 back up.

16 One final question with regard to the
17 January 23rd, 1998, report. Did you ever calculate what
18 the frequency of occurrence of the evidentiary sample
19 554 would be?

20 A. No.

21 Q. With regard to the CTT test, do you know
22 how many times that was performed?

23 A. I believe it was performed two times.

24 Q. Does anywhere in the notes -- well, I
25 apologize. Let me retry that question.

1 What was the date of the first time that
2 it was performed?

3 A. I'm going to have to look at the notes
4 for that.

5 Q. The relevant pages of the lab book are
6 Pages 33 through 37, I believe, if you have the --
7 that's the lab number. And Bates stamp number is, I
8 believe, 150 through 157, if you have the Bates stamp
9 copy in the upper-right hand.

10 A. I don't think I have that. I do have the
11 case notes. Is there a date that you can refer me to on
12 the laboratory notes?

13 Q. 1/15/98.

14 A. I think some of the page numbers are not
15 present at what I'm looking at here.

16 All right. I do have lab notes from
17 Lauren Crane dated 1/15/98, and it appears that
18 that's -- a CTT test was run on that date. There's a
19 number of samples that were tested, some from this case
20 and some from other cases, and the amount of reagents is
21 indicated, also.

22 Q. Okay. Do you see halfway down that page
23 where it says "Note" under the solutions?

24 A. It says no sample 5 -- it looks like it's
25 56884 left.

1 Q. Well, 56384 would correspond to the
2 female fraction on the vaginal swab, correct?

3 A. I believe that's correct. And I don't
4 know whether that's a 3 or an 8. 56 -- I mean, it
5 almost looks to me like it's 56884, but it could be
6 56384. Again, Lauren Crane could, because this is her
7 handwriting, would certainly be a better person to
8 verify what that number is.

9 Q. Sure. Are you aware of any relevant
10 samples in this case labeled 56884?

11 A. I'm not, no.

12 Q. Are you aware that the female fraction
13 from the vaginal swab is labeled 56384?

14 A. Yes.

15 Q. So that sample was consumed on this
16 testing on 1/15/98; is that correct?

17 A. If that's the sample, apparently it was,
18 yes.

19 Q. Do you have -- referring you to the scans
20 that I sent this morning and looking at 17, 8, do you
21 see that?

22 A. What number scan was that, because I have
23 them listed one through 10 on what you sent me.

24 Q. It would be Scan Number 8.

25 A. Number 8. Okay. Let me just pull that

1 up. Okay. I believe I have that in front of me now on
2 the computer. Okay.

3 Q. The date at the top of that is 1/23/98,
4 correct?

5 A. Yes.

6 Q. Does this appear to be the gel that was
7 run on or that corresponds to the data listed on
8 January 15th, 1998?

9 A. It appears to be, yes.

10 Q. Were these results from this CTT test
11 reported in any way?

12 A. I don't see anything in the lab notes
13 that I have.

14 Q. Do you know why not?

15 A. I really don't know.

16 Q. Does this appear to be a good test to
17 you?

18 A. Well, it's certainly showing some results
19 from the tests that were performed. With all kind of
20 gel-based systems like this, sometimes you don't get
21 clear, clean, crisp bands. It looks like these are a
22 little bit wavy, but there certainly is some data there
23 that can be interpreted.

24 Q. Did you rely on this data for your
25 results?

1 A. This is certainly part of the data that
2 was generated. There's also another run done on the
3 29th of January, 1998.

4 Q. Yes, sir.

5 A. And the combination of the two runs would
6 be what was ultimately used in the analysis.

7 Q. Okay. On the first column, 56384, with
8 the female sign next to it, do you see that?

9 A. Yes.

10 Q. Are there any results in that column?

11 A. I don't see any at all.

12 Q. On the -- did you ever report out any
13 results for Mrs. Boyd on her known standard?

14 A. I don't believe so, no.

15 Q. Do you know what the results are of her
16 known standard for the CTT results?

17 A. I must admit I really don't. Just to
18 kind of put this into context, this was done over 10
19 years ago, and all the notes and the gels from this
20 testing were then in the custody of Orchid Cellmark
21 after they purchased Life Codes Corporation back in
22 2001. So I really, certainly lost track of those after
23 I left the company.

24 Q. The stuff that we have here, the copies
25 of the gels and the lab notes would have been what you

1 reviewed to make your findings, correct? There's no
2 material that you're missing in order to draw a
3 conclusion, is there?

4 A. I don't know. I really don't. This
5 clearly is part of the material that was used. It could
6 have been all of it. I really don't have a recollection
7 of this particular case or analysis from over 10 years
8 ago.

9 Q. So as far as you're concerned, there's no
10 data in front of you indicating any CTT results for
11 Ms. Boyd?

12 A. That's correct.

13 Q. You don't know if Mrs. Boyd and
14 Mr. Simmons had the exact same CTT profile?

15 A. That is correct.

16 Q. If they did have the exact same profile,
17 the possibility of randomly selecting an unrelated
18 individual in the population, those numbers wouldn't
19 matter, because her and Mr. Simmons had the same
20 profile, right?

21 A. Well, obviously, if someone has the same
22 profile as a genetic marker or locus, you can't
23 distinguish one person from another if they're
24 identical.

25 Q. And Miss Boyd and Mr. Simmons aren't

1 related, as far as you know?

2 A. Correct.

3 Q. There's no indication that they were?

4 A. None that I knew of.

5 Q. Do you know what numbers were assigned to
6 Mr. Simmons based on the 1/23/98 CTT test?

7 A. Well, ultimately, there are numbers that
8 were assigned in the report dated February 2nd, 1998,
9 and it has the frequency of occurrence, but it does not
10 have -- well, it does have the alleles that were
11 detected that Mr. Simmons, and at the CSF1PO locus, it's
12 the C of the CTT, he was typed as a 10, 12. At the
13 TPOX, which is one of the Ts, a 10, 11, and at Cell 1,
14 TH01, the second T, a 7, 8.

15 Q. Do you know which scan, either the
16 1/23/98 test or the 1/29/98 test, were used to determine
17 those numbers for Mr. Simmons?

18 A. I really don't know which are those.
19 They could have both been used.

20 Q. Does he appear to have the same profile
21 on both of those tests to you or does his profile appear
22 to have changed between those two tests?

23 A. So are you talking about looking at
24 Number 8 -- and what's the other number? Is it nine --
25 from what you said to me this morning?

1 Q. It would be 17, 4 and 17, 8. Or 9 is
2 another picture of the same thing.

3 A. Okay. So eight is from 1/23; is that
4 right?

5 Q. That's correct.

6 A. All right. Where's the one from 1/29?
7 Is it nine?

8 Q. Yes.

9 A. Let me pull up nine, then. Bear with me,
10 because I have to kind of move the Skype picture around
11 in order to get to the, to this.

12 Q. Take your time.

13 A. All right. So what I'm doing is I'm
14 pulling up Number 9 on my computer behind me, and I have
15 Number 7 on the laptop over here, so I'm going to try to
16 compare these two, because I can't put both of them up
17 on the same time here.

18 So your question is whether or not the
19 profile from 68555 is the same in both of those runs?
20 Is that your question?

21 Q. That is my question.

22 A. As I look at the first locus at the
23 top -- and, again, it's hard to read these results on
24 the form that you're giving me right now, but I will do
25 my best. Clearly, the original gel itself or the

1 picture of it would be a better way to do this analysis.
2 But it looks to me like the one in Number 9 has a band
3 that's at the fourth marker from the top and the sixth
4 marker from the top, and that seems to be consistent
5 with what I'm seeing on Number 7.

6 At the next locus, there appear to be two
7 bands close together at three and four. They seem to be
8 consistent in both of those. And the last one appears
9 to be two bands that are the, that are three and four
10 alleles from the bottom or steps from the bottom, and
11 they, too, seem to be consistent. So from what I've
12 seen in these two results, they appear to be consistent
13 to me.

14 Q. So three and four, you say, he's a 10 and
15 11?

16 A. At --

17 Q. Or is there an empty space in between
18 those bands?

19 A. At TPOX, he was sized as a 10, 11, yes.
20 And, again, I'd have to go through my notes to determine
21 what the numbering of those alleles is. I remember I
22 did that at one point when I was reviewing this data.
23 It seemed to be consistent in terms of what was
24 reported.

25 So, again, just to put this into context,

1 there are three different locations that are examined in
2 this test: CSF1PO, TPOX and TH01. Each one of these
3 loci has a series of allele standards that flank the
4 samples that were run, and those size standards are used
5 in order to determine what alleles are present in the
6 samples that are tested, so that's kind of the way that
7 that gel is organized.

8 Q. So today, on that bottom marker, the one
9 closest to the number, you're saying he's a 10, 11?

10 A. Either 10, 11 at TPOX. And like I said,
11 I don't have my notes in front of me in terms of how
12 that is organized in terms of the numbering for those
13 loci, but the sizing that was reported for his known
14 sample at TPOX was a 10, 11.

15 Q. How about the CSF1PO?

16 A. He was sized as a 10, 12.

17 Q. And is that number the same in both of
18 those gels?

19 A. It appears to me to be the same from what
20 I'm looking at on the results that you sent me.

21 Q. On your materials, do you have Affiant's
22 Number 16? It's Page 15 in the lab book.

23 A. In the lab notes?

24 Q. In the lab notes, yes.

25 A. I do have the lab notes here, but you're

1 gonna have to give me something more. Is there a date
2 on it that I can refer to?

3 Q. This is what it looks like. It's
4 Page 15. It should be Page 15 in yours, too, if they're
5 in order.

6 A. Okay. Of course, I don't think they're
7 in order.

8 Q. It would be Affiant's Number 16 on the
9 materials that were sent to you by Mr. Zalenka.

10 A. Okay.

11 Q. I know there's lots of paperwork going
12 all over.

13 A. Unfortunately, there is, and I'm trying
14 to keep up with it. I'll tell you what. Why don't you
15 hold it up to the Skype monitor because it looks
16 familiar. I can't find it here right at the moment, but
17 if you have a question, maybe I can. Yeah, I can see
18 the numbers there.

19 Q. Okay. The top line is Miss Boyd's known
20 blood?

21 A. Yes.

22 Q. And there are no CTT results for that
23 sample?

24 A. Correct.

25 Q. The second line is Mr. Simmons' known

1 blood?

2 A. Correct.

3 Q. And it's labeled as 10, 11 at the CSF1PO?

4 A. I see that, yes.

5 Q. 10, 11 at the TPOX?

6 A. I see that, also.

7 Q. 7, 8 at the TH01?

8 A. Yes.

9 Q. The next line down would be the vaginal
10 swab and saline from MUSC male fraction F156384?

11 A. Yes. I see that.

12 Q. And it has CTT results listed for it as
13 well?

14 A. Correct.

15 Q. If I refer you back to the lab page that
16 was dated on January the 15th, 1998.

17 A. Yes.

18 Q. -- if we assume that this is 56384, where
19 it says "no sample left" --

20 A. Correct.

21 Q. -- does it appear that that sample was
22 ever tested and that there were any results on any CTT
23 testing for that sample?

24 A. It doesn't appear to be. I don't know
25 that for sure, and, again, hopefully, Lauren Crane would

1 have a recollection of that. There's certainly nothing
2 in the reports that were generated, and I don't see
3 anything in terms of gel results from it either.

4 Q. As a matter of fact, the one gel results
5 that we do have that has that evidence number listed
6 there are no results for?

7 A. Correct.

8 Q. Do you know how these numbers got onto
9 this chart?

10 A. I don't know.

11 Q. Do you know who prepared this chart?

12 A. That I don't know either.

13 Q. Do you know if this chart was shown to
14 the jury?

15 A. I don't know.

16 Q. Going back up to Mr. Simmons' blood type,
17 did those results that are listed for him reflect the
18 same results that you have in your report?

19 A. There seems to be a discrepancy at the
20 CTT loci in that what you showed me, you had a, I think,
21 a 10, 11 at both CSF1PO and TPOX; is that correct? I'm
22 sorry I don't have this in front of me, but it's --
23 yeah. It looks like it's a 10, 11 on both of those, and
24 the report here has a 10, 12 with the appropriate
25 calculations for that. If you're looking at the gel, it

1 appears to be 10, 12, not 10, 11.

2 Q. Dr. Baird --

3 A. Yes.

4 Q. -- do you know why Mrs. Boyd's standard
5 was not done as on the CTT test?

6 A. I don't know why it doesn't appear on the
7 notes or in the report. I don't know whether it was
8 done or not done. You know, again, I don't have any
9 recollection of the testing that was done for her
10 sample, and there's certainly nothing in the notes that
11 I have in front of me or the reports that were generated
12 to reflect any testing done on her.

13 Q. And you agree that the samples are
14 mixtures?

15 A. Yes.

16 Q. So you have to take, you have to take her
17 profile, whatever it might be, out of the equation in
18 order to calculate whatever you're saying was the
19 profile of the perpetrator that's left in the sample
20 after you subtract the victim profile?

21 A. Correct.

22 Q. Because that's what you did, right?

23 A. Yes.

24 Q. You subtracted the victim profile from
25 the DQ alpha sites in order to calculate at your

1 frequency? You discounted it?

2 A. Right. We looked at the overall profile
3 that was generated from the male fraction of the vaginal
4 swab and compared it to the victim and the individuals
5 that were tested in this case, and it was consistent it
6 was a mixture and calculated the frequency of occurrence
7 of the individuals that would make up that mixture.

8 Q. What was Miss Boyd's frequency?

9 A. I beg your pardon?

10 Q. What's Miss Boyd's frequency?

11 A. Frequency of occurrence? I don't know.
12 I don't think it was calculated.

13 Q. So how do you know what the evidentiary
14 sample was if you're not able to take out her profile?

15 A. Well, again, the totality of the evidence
16 that we had in this case, in looking at all the testing
17 that was done, it was consistent with it being a mixture
18 of more than one person. And the victim was a
19 contributor to that mixture, and ultimately, Mr. Simmons
20 was also consistent with being a contributor to that
21 mixture.

22 Q. And that's the DQ alpha, and for the DQ
23 alpha and polymarker sites, you discounted her profile
24 in order to calculate your frequency. Basically, you
25 just included his profile in order to calculate your

1 frequency?

2 A. I just calculated the frequency of his
3 profile at those genetic markers.

4 Q. And that's the number that you're saying
5 is the correct number. You shouldn't use the single
6 source statistics, because you're able to account for
7 the mixture?

8 A. Mixture statistics are certainly an
9 appropriate way to express a mixture where there could
10 be more than one individual. In this particular case,
11 we performed the calculation of a single source
12 individual and did our final determination based on
13 that.

14 Q. Why?

15 A. Based on the data that was obtained, it
16 seemed consistent that this was a mixture of more than
17 one person. It was consistent with it being from the
18 victim and the defendant.

19 Q. Okay. So I'm having some trouble with
20 the "this was a mixture" and we use single source
21 statistics. Can you explain that to me?

22 A. Again, in a mixture situation, you can
23 have mixtures that are difficult to interpret how many
24 people may be involved, and you can have mixtures that
25 are easier to interpret. Our approach in this

1 particular case was to consider that this was a result
2 consistent with it being a mixture, based on the data
3 that was obtained. The victim was certainly part of
4 that mixture, so we could account for her alleles being
5 present, and any foreign alleles would have to be from
6 someone else. And when we made the comparison to the
7 defendant in this case, he was not excluded as being a
8 contributor to that mixture overall.

9 Q. Okay. And I understand how you got your
10 frequency numbers that you used on the DQ alpha and
11 polymarker sites. That was the one in 8110 number,
12 correct?

13 A. Correct.

14 Q. You got that number because you
15 discounted all of the alleles far into Mr. Simmons that
16 you could attribute to Miss Boyd?

17 A. We got that number by calculating the
18 frequency of occurrence of Mr. Simmons' profile at those
19 genetic markers.

20 Q. That's Mr. Simmons' profile, not the
21 evidentiary sample. That's not reflective of all of the
22 alleles that you see in the unknown sample?

23 A. That's correct.

24 Q. You removed the alleles that you
25 attribute to Mrs. Boyd in order to make that

1 calculation?

2 A. Well, the calculation was made from
3 Mr. Simmons' profile alone. The alleles that were
4 present in his profile were what were used to calculate
5 the combined frequency of occurrence at those genetic
6 markers.

7 Q. Okay. For instance, at the LDLR site
8 where Mrs. Boyd was an AB.

9 A. If there's a report that you can refer me
10 to that would have that on it, it would probably save a
11 little bit of time.

12 Q. Again, I think this Page 15 from the lab
13 notes or Affiant's 16 in the materials that were sent to
14 you by Mr. Zalenka.

15 A. Is that the same one that you had that
16 you held up before? If so, I might ask you to do that
17 again, because, unfortunately, I don't seem to have that
18 in front of me. I have Mr. Boyd -- or Mr. Simmons'
19 profile at the DQ alpha polymarker loci. I'm trying to
20 find the victim's profile. So if you want to hold that
21 chart up for me again, I can certainly look at that.

22 Q. Well, let me ask you this: If you can't
23 find what her profile was or what the evidentiary
24 profile was, how do you know that he is a possible
25 contributor?

1 A. Well, again, I'm just looking at the
2 conclusions that we drew from all the data that was
3 tested. Again, this was tested over a number of months,
4 actually years from the initial samples that were
5 submitted. I'm just trying to go through and determine
6 what her alleles were. Now, I think I found a
7 preliminary report that's dated October 25th, 1996, that
8 appears to have results from Lillie Boyd. That's the
9 victim in this case, I believe --

10 Q. Yes.

11 A. -- for the genetic markers for DQ alpha
12 and polymarker. So your question was? At what locus
13 were you talking about?

14 Q. The first one, LDLR.

15 A. LDLR I have in Miss Boyd's profile an AB,
16 and an LDLR in Mr. Simmons, I have a B.

17 Q. Okay. And do you know what the
18 evidentiary sample was?

19 A. The evidentiary sample in this case was
20 an AB.

21 Q. When you calculated the statistics for
22 Mr. Simmons -- well, I guess you didn't calculate the
23 statistics of a possible match to the evidentiary
24 sample.

25 A. Well, we did. We calculated the

1 frequency of occurrence in Mr. Simmons' profile based on
2 the genetic markers that we tested. Obviously, the L --
3 obviously the LDLR, with Miss Boyd having an AB,
4 everyone would be included as contributing to a mixture
5 based on there only being two possibilities of that
6 locus. Either you're an A, a B or an AB. So there are
7 basically three genotypes that you can, that you can
8 generate. So everyone would fall into a situation where
9 they could not be excluded based on that marker alone.

10 Q. This number that you calculated, the one
11 in eight million, basically, that number is just the
12 random match probability of randomly selecting an
13 unrelated individual to Mr. Simmons in having his
14 genetic twin?

15 A. Well, I would phrase it this is the
16 frequency of occurrence of that combination of alleles
17 at the genetic markers examined in that particular
18 population group.

19 Q. And it has nothing to do with the random
20 match probability of somebody being a contributor to the
21 evidentiary sample?

22 A. It's not a calculation for, certainly not
23 a mixture calculation, but as I've said in this
24 particular case, the data that we generated from all the
25 testing that we did was consistent with it being a

1 mixture that included both the victim and the suspect.

2 Q. So in calculating the frequency
3 population for LDLR, do you only use the B?

4 A. The calculation was done for Mr. Simmons'
5 profile at all the genetic markers tested, including
6 LDLR.

7 Q. Okay. Could somebody with an A have
8 contributed to the evidentiary sample?

9 A. Yes. At that marker.

10 Q. Could there be a person out there who is
11 AB at LDLR and that person be included as a contributor,
12 possible contributor to the sample?

13 A. Yes, as was Miss Boyd.

14 Q. Okay. Is that -- that data is not
15 reflected in your number in any way?

16 A. Correct.

17 Q. Now, so you discounted the A. You
18 decided that that A had to have come from Miss Boyd?

19 A. What we did was that we examined all the
20 genetic markers tested, and we made a calculation for
21 the frequency of occurrence of Mr. Simmons' profile at
22 the genetic markers that were tested.

23 Q. But calculating the statistical
24 possibility of finding a genetic match to Mr. Simmons in
25 no way relates to the probability of selecting a random

1 individual who could have contributed to the evidentiary
2 sample? Those aren't related in any way, are they?

3 A. It's a different calculation, and as I've
4 said several times already, the results from the testing
5 that we performed were consistent that this was a
6 mixture that did not exclude the victim nor the suspect.
7 The calculation that we made for the profile of
8 Mr. Simmons reflects his genetic profile at those
9 markers that were tested.

10 Q. Are there genetic profiles other than
11 Mr. Simmons which could have contributed to the
12 evidentiary mixture?

13 A. At some locations, yes.

14 Q. At a number of locations, correct?

15 A. Sure. Absolutely.

16 Q. Did you in any way figure into your
17 statistics the possibility that there were other
18 individuals who have genetic profiles that could have
19 contributed to the sample?

20 A. That was not calculated in our report
21 that we issued, nor did it come up at trial.

22 Q. Nobody asked you?

23 A. Correct.

24 Q. If you had been asked, you would have
25 calculated the statistics of an unknown individual

1 randomly selected from the population having a genetic
2 profile that could have contributed to the evidentiary
3 sample?

4 A. That calculation could be performed, yes.

5 Q. You've seen the testimony and the data
6 and the PowerPoint prepared by Dr. Lambert?

7 A. Yes.

8 Q. You don't disagree with any of his -- do
9 you disagree with any of his mixture statistics?

10 A. The calculations he performed using the
11 mixture calculation appear to be appropriate, yes.

12 Q. I'm working a little bit backwards, but,
13 basically, it turns out to be one in 700, one in 178
14 Caucasians, one in 508 blacks, if you use mixture
15 statistics?

16 A. I believe those were the numbers that
17 were generated, yes.

18 Q. And those appear to be correct to you?

19 A. It appears to be correct.

20 Q. No mathematical error like in your first
21 report?

22 A. Correct.

23 Q. Now, a person who has an LDLR site
24 genotype of AA could have contributed to the evidentiary
25 sample?

1 A. Correct.

2 Q. A person who's type BB could have
3 contributed to the sample?

4 A. Correct.

5 Q. A person who's AB could have contributed
6 to the sample?

7 A. Correct.

8 Q. You only calculated the frequency
9 population of somebody being a B?

10 A. Correct. We just used the combined
11 frequency of occurrence of the defendant's profile at
12 all the genetic markers, including LDLR.

13 Q. Okay. The next site on the genetic locus
14 that was used would be the GYPA?

15 A. Correct.

16 Q. Likewise, there are only two
17 possibilities at that site?

18 A. Well, there's actually three. You could
19 be an AA, you could be a BB, you can be an AB, three
20 genotypes.

21 Q. Correct. Okay. Two different genes that
22 are A or B or AB?

23 A. Right. There are two genes, and they can
24 be expressed as either homozygote or heterozygote.

25 Q. Mr. Simmons and Miss Boyd are both AB; is

1 that correct?

2 A. Correct.

3 Q. Everybody in the world is either an A or
4 B, correct?

5 A. Everyone's either an AA, an AB or a BB.
6 There are three buckets that everyone fits into at that
7 particular locus, unless they have an odd --

8 Q. Right. And I thank you for correcting
9 me. I think I'm misstating it. But, basically, what I
10 mean is everyone in the world could be a contributor to
11 the unknown vaginal swab at that site?

12 A. Based on that locus alone, yes.

13 Q. The next site that you get to is the HBGG
14 site?

15 A. Correct.

16 Q. And how many possibilities -- well, let
17 me ask it this way. Mr. Simmons and Miss Boyd are both
18 AC; is that correct?

19 A. Correct.

20 Q. So at the first three sites -- I'm asking
21 that wrong.

22 At the second two sites, they are both
23 the same profile?

24 A. I'm sorry. The second two sites? I
25 don't follow you.

1 Q. The GYPA and the HBGG, Mr. Simmons and
2 Miss Boyd are genetically identical?

3 A. At the GYPA, they have the same profile.
4 At HBGG, they also have the same profile. They're both
5 typed as an AC.

6 Q. There are other profiles that could have
7 contributed to the HBGG site, those being AA, AC and CC
8 that could have contributed to the unknown?

9 A. Correct.

10 Q. And you did not include any of those
11 possibilities in your statistical calculation?

12 A. Correct. I did not do a mixture
13 calculation. I performed a calculation for the
14 frequency of occurrence of a single source.

15 Q. In order to perform your frequency
16 number, you discounted or removed -- you didn't just
17 take Mr. Simmons' known and calculate the frequency of
18 that genotype or is that what you did?

19 A. That's what I did.

20 Q. That is what you did. So it didn't
21 matter what was in the evidentiary sample. Your number
22 has nothing to do with evidentiary sample. It just has
23 to do with Mr. Simmons?

24 A. Well, the evidentiary sample, obviously,
25 is used to compare to the victim and the suspects that

1 were ultimately tested. The conclusion was that the
2 evidentiary sample was consistent with being a mixture
3 that did not exclude the victim or Mr. Simmons, and the
4 calculation that I performed was that for the frequency
5 of occurrence of Mr. Simmons' profile at the genetic
6 loci that were examined.

7 Q. In order to determine that it was a
8 two-source mixture, being Miss Boyd and Mr. Simmons, you
9 made a comparison of all of the genotypes that you see.
10 You look at his. If there are any genes in the sample
11 that aren't his and they're not attributed to Mrs. Boyd,
12 then he would be excluded as a possible contributor?

13 A. That would be the likely conclusion, yes.

14 Q. If it was a single source?

15 A. Correct.

16 Q. In order to look at that, you have to
17 examine her DNA profile as well?

18 A. Correct.

19 Q. Nobody ever determined what her DNA
20 profile is at the CTT site?

21 A. I don't know whether that is correct or
22 not. I certainly don't have any evidence in reports
23 that were generated or the notes that were retained that
24 have that information on it. Like I said before, I
25 think Lauren Crane may be able to recall what was done

1 with that particular test.

2 Q. If you never determined her profile,
3 there's no way for you to determine whether or not what
4 the accurate CTT results would be for the perpetrator?

5 A. Again, I don't know whether her profile
6 was determined at CTT or not. I don't have any
7 information in front of me to help in that regard.

8 Q. And you agree that everything else is a
9 mixture?

10 A. Yes.

11 Q. There's no reason to believe, is it, that
12 the CTT test, the PCR test, would also be a mixture?

13 A. Generally, when you have a mixture at one
14 locus, you'll have a mixture at a number of locations.

15 Q. And when you do the amplification for PCR
16 analysis, you amplify everything that's there?

17 A. Correct.

18 Q. It doesn't -- the amplification procedure
19 doesn't distinguish between male or female DNA?

20 A. Correct.

21 Q. There's no -- there are tests today like
22 YSTR that are male specific?

23 A. That's correct.

24 Q. That would remove the possibility of
25 contamination from the female DNA?

1 A. That's correct. That's why the YSTR test
2 is so helpful in cases like this.

3 Q. When you say -- when we were talking
4 about these profiles, the AA, BB, AB that could be
5 contributors to the profiles seen on the unknown at
6 these various sites, basically what you mean by could be
7 a contributor is that their genotype, either the AA
8 genotype, would produce exactly the same results on the
9 evidentiary sample as did Mr. Simmons' profile?

10 A. I'm sorry. I didn't quite follow that
11 question.

12 Q. Sure. And let me give you an example.
13 The LDLR site where Mr. Simmons is a B --

14 A. Yes.

15 Q. -- and Miss Boyd is an AB --

16 A. Right.

17 Q. -- a person who was an A would produce
18 the exact same results as for the evidentiary sample as
19 seen here?

20 A. That's correct.

21 Q. There's no way for you to know?

22 A. Correct. At that locus, right.

23 Q. Do you calculate mixture statistics now
24 at your lab?

25 A. Yes.

1 Q. When dealing with mixed samples?

2 A. Yes, we do.

3 Q. And the reason that you didn't do it in
4 this case -- I know we've been over it a couple times,
5 but can you just tell me one more time?

6 A. Well, in this particular case, the data
7 was consistent with being a mixture that did not exclude
8 the victim or the suspect.

9 Q. But that would be true for any mixture
10 calculation, right?

11 A. It could be. And sometimes, even today,
12 when you have a mixture, depending on whether there's a
13 primary contributor to a mixture that you can determine,
14 single-source calculations can still be performed, even
15 if you have a mixture. Now, if you don't know exactly
16 the proportion of the individuals that make up the
17 mixture, the mixture calculations clearly are a more
18 important way to do the calculation.

19 Q. Do you have any way of knowing the
20 contributing amounts to any of these mix samples?

21 A. Not by this testing, no.

22 Q. This is not where you get peaks and you
23 can say how much from each contributor are part of the
24 sample?

25 A. Correct.

1 Q. Generally, when you do modern DNA
2 testing, you run it through and then you see, you see
3 some graphs?

4 A. Well, the testing that you can do today
5 is, obviously, more sophisticated and more powerful than
6 the tests that were performed in this particular case,
7 and you do have the opportunity to determine more
8 information about the contributors to a mixture with
9 today's technology. You're absolutely right.

10 Q. And you do that through peak heights and
11 stuff like that?

12 A. Typically, you do it through peak
13 heights, yes.

14 Q. You don't have that ability here?

15 A. Correct. This is a different technology.

16 Q. Any of this testing, you don't have that
17 ability?

18 A. Correct. This is a different technology.
19 With a DQ alpha polymarker, this is a reverse dot blot
20 test. You can look at intensities of some of the dots
21 to help determine the amount of one allele versus
22 another. But, again, it's certainly nowhere near as
23 sophisticated as what you can do today with capillary
24 electrophoresis.

25 Q. So, again, for these evidentiary samples,

1 you said that you were able to determine that it was
2 just two people that contributed to these evidentiary
3 samples?

4 A. What I said was it was consistent with it
5 being a mixture from that was accounted for by the
6 victim and the suspect.

7 Q. And that's only at the DQ alpha and
8 polymarker sites because the victim was never -- no
9 results were ever reported for her CTT test?

10 A. Certainly none that I have in front of me
11 for her CTT profile. Again, I -- certainly, it was
12 attempted to obtain her profile. I don't know whether
13 it was obtained. If it was, I don't know what her
14 alleles were.

15 Q. Is it possible that three people
16 contributed to the genetic sites that you tested at the
17 DQ alpha and polymarker sites?

18 A. Certainly possible.

19 Q. Do you have any way of knowing whether or
20 not it was just two or three or four or more?

21 A. Not based on this testing, no.

22 Q. You have no idea?

23 A. Correct.

24 Q. And you would agree with Dr. Lambert's
25 testimony that Mr. Simmons' profile could be one answer

1 to the genetic sites determined by the evidentiary
2 sample as long as you discount what you attribute to be
3 Mrs. Boyd's profile to account for all of the other
4 alleles that are seen?

5 A. Well, certainly, Mr. Simmons is not
6 excluded as contributing to that mixed profile.

7 Q. Do you recall how many people were tested
8 with regard to this DNA?

9 A. I don't recall the exact number, but it
10 was, it was --

11 Q. If I say 26, does that sound about right?

12 A. It sounds about right. I was going to
13 say it's probably 10 or 20. 26 is probably the number.

14 Q. Do you know whether or not any of those
15 individuals, in combination with each other, could
16 contribute entirely to the unknown profile determined
17 from the vaginal swab?

18 A. Sure. If you made the assumption that
19 there were more than two contributors, that being the
20 victim plus two additional people, there could certainly
21 be other individuals who would not be excluded.

22 Q. Do you have any reason not to calculate
23 that number in order to make that assumption?

24 A. The number could certainly be calculated.
25 I don't really recall the conversation in this case

1 prior to the testimony, whether it was, whether there
2 was other evidence nongenetic that was factored in in
3 terms of whether this was likely to be only two
4 individuals, the victim and only a single perpetrator.
5 But, certainly, if there was a question of more than one
6 individual involved other than the victim, an
7 appropriate calculation could be made.

8 Q. If there was a question about more than
9 one perpetrator being involved and the victim, would
10 that change the numbers that you gave at trial?

11 A. Sure.

12 Q. In what way?

13 A. Well, it would certainly lower the
14 frequency of occurrence of the overall combination of
15 individuals that could contribute to that particular
16 profile if you assume that there were more than two
17 perpetrators, plus the victim.

18 Q. If there were testimony involved in
19 statements that there were more than one perpetrator,
20 would that have been important to you in making your
21 calculations?

22 A. Sure.

23 Q. As far as you know, you weren't given any
24 of that?

25 A. I don't recall that we ever received that

1 information.

2 Q. Well, if you had received it, you would
3 have done the mixture statistics, correct?

4 A. Correct.

5 Q. Dr. Baird, are you familiar with this
6 book?

7 A. I sure am. I've got it in my bookcase
8 right behind the camera.

9 Q. And, as a matter of fact, you were
10 involved in a case regarding some statistics that was
11 instrumental in the creation of this book?

12 A. Well, the one prior to that one, but,
13 yes, absolutely.

14 Q. And that would have led to this site?

15 A. Correct.

16 Q. You sent a number of chapters from this
17 book to the solicitor involved in this case?

18 A. Correct.

19 Q. Five of them?

20 A. I don't recall the number, but I do
21 recall sending some, yes.

22 Q. Your letters included in the exhibits and
23 whatever numbers included in your letter is what it is?

24 A. Correct.

25 Q. And you're familiar with Chapter 5 in

1 this book, because that's the one that talks about how
2 to calculate the statistics?

3 A. Yes.

4 Q. Specifically, it has a section titled
5 "Mixed Samples"?

6 A. I can grab my copy if that would help.
7 Would that help?

8 Q. Sure. Yes, sir.

9 THE WITNESS: Chris, could you behind you
10 on the middle shelf?

11 VIDEOGRAPHER: We're going off the
12 record. The time is 11:29.

13 (Off the record.)

14 VIDEOGRAPHER: This is the beginning of
15 Videotape Number 2. We're back on the record at
16 11:32.

17 BY MR. YOUNG:

18 Q. Dr. Baird, I think I was referring you to
19 Page 129 in the Evaluation of Forensic DNA, a
20 publication by the National Research Council.

21 A. Correct.

22 Q. In that, on that page is where it details
23 how to calculate the appropriate statistical frequencies
24 for a mixed sample.

25 A. Correct. And, again, this is copyrighted

1 1996.

2 Q. And this testing was done in 1998?

3 A. Correct.

4 Q. And you'd agree with me that this is the
5 book that every expert relies on in the appropriate
6 calculations for DNA frequencies?

7 A. Yes.

8 Q. And in it, they say if it's a mixed
9 sample, you have to use the mixed sample statistical
10 techniques?

11 A. Correct.

12 Q. That's not what you did?

13 A. Correct.

14 Q. You used the single source frequency?

15 A. That's right.

16 Q. There are no results for Miss Boyd on the
17 CTT test?

18 A. None that I have seen in the reports or
19 the paperwork that was provided me.

20 Q. Is not having one of the knowns from a
21 mixed sample a problem when you contribute all of the
22 evidentiary sample to the suspect? I mean, if you can
23 go to Ms. Boyd's CTT profile, would it enhance your
24 ability to make determinations from the DNA?

25 A. It would be helpful to have that piece of

1 information, absolutely. And, again, I don't know
2 whether that information was available at the time of
3 testimony or not. Clearly, it's not present in any
4 reports that I have in front of me here. And as I said,
5 in the lab notes that I've looked at, I don't see an
6 indication of it either.

7 Q. Okay. And you have no idea why the CTT
8 test was run twice?

9 A. I really don't know for sure.

10 Q. Well, I mean, do you have some idea?

11 A. Well, typically, it's always good to run
12 a test twice. I mean, duplication is one of the
13 foundations of science to replicate a result. In the
14 first result that we talked about some time ago, the gel
15 itself appeared to be not as good a quality as the
16 second run. So, again, it could have been just to see
17 whether we could get a better result from the testing
18 that was done.

19 Q. And the results from the first run are
20 never reported out individually. As far as you're
21 aware, the results that are reported are a compilation
22 of the first and second run?

23 A. Correct.

24 Q. If the results of the first run and the
25 second run vary, that indicates a problem? That would

1 indicate a problem?

2 A. Well, it could. Again, at least in the
3 sample that we talked about, they seem to be consistent
4 in terms of the profile from what I can determine from
5 what you sent. Again, sometimes when you run a test, if
6 it doesn't run correctly, it needs to be rerun. This
7 happens all the time in forensic science work.

8 Q. And these gels and this data is what you
9 use in verifying the conclusions in the report?

10 A. Correct.

11 Q. Bear with me one second, Dr. Baird.

12 Dr. Baird, I'm going to ask you to go
13 back to when we were doing the comparison of the first
14 and second CTT test.

15 A. Yes.

16 Q. And those are 17, 8 and 9 on the PDF that
17 I sent you this morning.

18 A. I have these up on two computers, so I'm
19 gonna have to move this over. Okay.

20 Q. Sure. And I want you to start to look at
21 the test that was run on the 23rd first.

22 A. And what number gel is that?

23 Q. 17, 8. Number 8.

24 A. Number 8. Okay. Okay. I've got Number
25 8 up.

1 Q. The C portion of the CTT test is the
2 section that's closest to the numbers?

3 A. Closest to the numbers, yes, at the top.

4 Q. Okay.

5 A. What I would recall.

6 Q. Right. What I would call the top.

7 Mr. Simmons is the one below what's labeled 68555?

8 A. Correct.

9 Q. That would be his known?

10 A. Right.

11 Q. The way that you assign values to the C
12 test to determine whether it's 10, 11, 7, 8, 9, you
13 count up from the bottom, from the last. The knowns are
14 the lane labeled MWM?

15 A. Correct.

16 Q. Okay. And how do you assign values to
17 what would be Mr. Simmons' profile?

18 A. We use the markers in the molecular
19 weight marker lane to see what alleles the unknowns
20 have, the samples have, compared to the known markers.
21 So if a line lines up with one of the markers, you then
22 assign it that particular allele size.

23 Q. Okay. And what numbers are you assigning
24 to Mr. Simmons based on this test?

25 A. You know, I really wouldn't have assigned

1 any markers on this one. It looks like, to me, this
2 looks like Mr. Simmons' lanes are overloaded, and as a
3 result, it's difficult to make allele assignments in
4 that situation, which is probably why it was rerun on a
5 subsequent date.

6 Q. So you wouldn't assign any values based
7 on this run?

8 A. No, not for CTT.

9 Q. On the 29th, that's Number 9?

10 A. Let me pull that one up. Okay.

11 Q. Would you assign values based on that?

12 A. I would, yes.

13 Q. Why that one as opposed to the other one?

14 A. Well, again, I'm looking at results that
15 are a picture taken from a gel and transferred
16 electronically. It's certainly not -- it's difficult
17 from any of these to make assignments, but this clearly,
18 to me, is a better quality result than the first one.
19 So it may be a little bit overloaded, but it appears
20 that you could make some allele assignments based on the
21 profile from this particular result.

22 Q. They don't appear to be similarly
23 overloaded as the first?

24 A. They appear to be less overloaded. There
25 certainly is more DNA than one would like to have in

1 that sample. But, to me, I think you, you know, it
2 looks like you could still make a determination based on
3 the results you have.

4 Q. Looking at the second series of markers
5 down on that same test --

6 A. Okay.

7 Q. -- do you see Mr. Simmons' sample?

8 A. Yes, I do.

9 Q. Do you see the 56386 sample, which would
10 be the evidentiary sample, correct?

11 A. Correct.

12 Q. The evidentiary sample has a strong band,
13 one strong band?

14 A. Correct.

15 Q. Indicating the homozygous person and/or
16 mixture?

17 A. Correct.

18 Q. Whoever was tested, everybody is the same
19 at that site?

20 A. Right. They're homozygotes. They have
21 two copies of that allele, yes.

22 Q. And Mr. Simmons doesn't match that site?

23 A. Correct.

24 Q. So he's excluded as being a contributor
25 of that evidentiary sample?

1 A. I wouldn't go so far as to say that.
2 Again, the mixture appeared to be primarily from the
3 victim, based on the totality of the evidence that we,
4 that we looked at. This would be consistent with it
5 coming from the victim, but, unfortunately, we don't
6 have her profile to compare that to.

7 Q. Then why did you use that site to
8 calculate the statistics of random match probability?
9 I'm sorry. You never calculated random match
10 probability; is that correct?

11 A. Correct. I calculated the frequency of
12 occurrence.

13 Q. Frequency of occurrence of Mr. Simmons.
14 You never calculated random match possibility?

15 A. Correct.

16 Q. Presenting DNA analysis and statistical
17 analysis to the jury, the standard is to calculate
18 random match probability?

19 A. Well, the standard is to represent, put
20 some weight to whatever genetic evidence was obtained
21 from the testing. In this particular case, based on the
22 totality of the results we obtained, it appeared to be
23 consistent with it being a mixture from the victim and
24 the defendant, and the calculation that was performed
25 was for the frequency of occurrence of the defendant at

1 the genetic markers that were looked at.

2 Now, I should also say, too, that I don't
3 know what the original results look like from this
4 particular gel. It's certainly possible that there were
5 some faint bands that were consistent with the suspect
6 at this particular location, which would certainly have
7 been important in making the final conclusion and
8 interpretation. Unfortunately, those gels appear to not
9 be in existence anymore, so we're relying on the results
10 that we have up here now, which are certainly not
11 optimal for making a determination from the small
12 amounts of DNA that may be present.

13 Q. Well, Mr. Simmons only has two alleles at
14 that T site, right?

15 A. Correct.

16 Q. Possibility of only two? Absent some
17 genetic defect, he only has two?

18 A. His profile has two alleles at that
19 locus, yes.

20 Q. Hang on one second, Dr. Baird. I
21 apologize.

22 A. Okay. I thought it was me.

23 Q. No.

24 A. Okay.

25 Q. You see the two dark bands for

1 Mr. Simmons that don't line up with the evidentiary
2 sample at that T site?

3 A. Correct.

4 Q. You're saying that there's a possibility
5 that there are some light bands that you can't see that
6 do line up?

7 A. Correct. In the original gel that was
8 generated from this testing, there may have been some
9 additional results at that location that are not
10 apparent in what we have today.

11 Q. So you're suggesting there's a
12 possibility that Mr. Simmons has a third gene at that
13 site that would match up with the evidentiary sample?

14 A. I didn't say that. What I'm saying is
15 that the evidentiary sample at the middle locus, the
16 TPOX locus, appears, from the results that I'm looking
17 at here, to be a single allele.

18 Q. On the evidentiary sample?

19 A. On the evidentiary sample. I'm talking
20 about 56389.

21 Q. And we have no idea what Miss Boyd's
22 profile is at that site?

23 A. Correct. The evidentiary sample 68555,
24 that's the known sample for Mr. Simmons, has two
25 alleles. Both alleles are in a different position than

1 the single allele that's detected in the evidentiary
2 sample.

3 What I'm saying is a possibility is that
4 there may be two like alleles that match up with
5 Mr. Simmons above the primary allele that we see in the
6 result from the evidentiary sample at the middle locus
7 TPOX. Without having the original gels to make that
8 determination is difficult to do.

9 Again, Lauren Crane, the person who
10 actually performed this analysis initially, may have
11 some recollection of what was done in this particular
12 case, what the results were with other gels there may be
13 in this particular case. So I wouldn't --

14 Q. Based on the data -- I'm sorry.

15 A. So I would not exclude Mr. Simmons based
16 on that result alone.

17 Q. You're saying that there's the
18 possibility that you had more data than is reflected
19 here at the time that you originally looked at it?

20 A. Correct.

21 Q. If you didn't have that data, if you were
22 just looking at it today, you would exclude Mr. Simmons
23 as a possible contributor to that sample, to the unknown
24 sample?

25 A. I don't think I would make that

1 assumption based on this alone. Again, you can have
2 situations where you have a small amount of DNA present
3 from an individual that may appear at some loci but not
4 others. You may have an allele that drops out at a
5 locus and be present at other loci. So I certainly
6 would not base my interpretation on a single locus
7 alone. One needs to look at the totality of the testing
8 done genetically to make a final determination.

9 Q. If you count faint bands at one site, do
10 you have to count them at the other sites?

11 A. You certainly have to take them into
12 account, sure.

13 Q. A couple more questions, Dr. Baird.

14 A. Okay.

15 Q. When you're presenting the data to the
16 jury, especially in a statistical format -- sorry. I'm
17 getting tongue tied -- isn't it more appropriate to
18 present the frequency of the evidentiary sample rather
19 than just the frequency of the suspect?

20 A. It really depends on what the results
21 look like. I mean, in some cases, you can certainly
22 report a mixed profile statistic if the data supports
23 that interpretation. If you have a situation where you
24 have a primary donor, for example, do an evidentiary
25 sample, a single source calculation can still be

1 performed, even if it's a mixture.

2 Q. And like we've said, there's no way for
3 you to determine who's a primary donor in this mixture,
4 based on the genetic testing that was done in this case?

5 A. It certainly is more difficult with the
6 type of tests that were done in this particular case.
7 It doesn't have the sophistication of the testing today,
8 as we've talked about, where you can look at peak
9 heights and you can use numbers generated by the
10 instruments that are used for the allele determination
11 to help evaluate how much DNA is present from each
12 individual.

13 Q. What if only one loci in the evidence had
14 been consistent with Mr. Simmons? Would you still give
15 the same statistic of one in eight million?

16 A. No.

17 Q. Why not?

18 A. Well, are you -- again, I interpret your
19 question to mean if I only had one locus that had a
20 result, would I use that in the calculation.

21 Q. Sure.

22 A. You know, again, what is done is you look
23 at the totality of the evidence that you have from the
24 testing that's performed, and that will then allow you
25 to make a conclusion and calculate appropriately based

1 on that evidence.

2 Q. You've done testing where some of the
3 genetic sites that you were looking for didn't show up
4 in the test?

5 A. Correct.

6 Q. Would you include the frequency of the
7 suspect's genetic profile at those sites in calculating
8 the frequency of random match probability?

9 A. Well, you couldn't do it if you didn't
10 know what the profile was of an individual.

11 Q. How about if you knew -- if you didn't
12 know the profile of the evidence, would you include that
13 site in your statistical analysis?

14 A. I'm not quite following the question that
15 you have.

16 Q. Sure. If you had done this testing and
17 you got a strong -- you got Mr. Simmons' known.

18 A. Yes.

19 Q. And you got Miss Boyd's known.

20 A. Right.

21 Q. And let's say that on the DQ alpha
22 polymarker testing, only the first two sites showed
23 results, and the other three sites or other four sites
24 did not.

25 A. So this is a hypothetical you're giving

1 me?

2 Q. Yes, sir.

3 A. Okay.

4 Q. It's a hypothetical.

5 A. Okay. I'm with you.

6 Q. Would you do the same statistical
7 analysis or would you only include alleles for which you
8 had evidentiary data?

9 A. Again, it's hard for me to give an answer
10 to your hypothetical because I would really base my
11 final conclusion on all the evidence that I had. Your
12 hypothetical, I'm having difficulty kind of
13 incorporating what it is that you're trying to get at.
14 I mean, obviously, you want to use all the results that
15 you have from your testing to make your final conclusion
16 and that whatever calculations are appropriate, based on
17 that data set, would be made.

18 Q. If the question to you was -- if the
19 question to you is what is the probability of a randomly
20 chosen person unrelated to Kenneth Simmons having the
21 same genetic profile as the genetic profile found in the
22 semen from the vaginal swab taken from the autopsy, does
23 your number in any way answer that question?

24 A. Yeah, it does. Basically, I would
25 interpret that to mean the frequency of occurrence of

1 the individual that matches that particular semen
2 profile.

3 Q. Well, as we determined, there are a
4 number of genetic profiles that could match that unknown
5 sample, right?

6 A. Correct.

7 Q. And the question was: What's the
8 probability of randomly choosing a person unrelated to
9 Kenneth Simmons having the same genetic profile, not as
10 Mr. Simmons but as the genetic profile found in the
11 semen from the vaginal swab taken at autopsy?

12 A. Well, the semen from the vaginal swab I
13 would interpret to be the male fraction. So we're
14 talking about the male DNA that's present in that
15 particular sample. As I've said a number of times
16 already, based on the totality of the evidence that we
17 had in this case, looking at the genetic markers, the
18 defendant, Mr. Simmons, was not excluded as contributing
19 to the mixture. So the statistics that I gave was the
20 frequency of Mr. Simmons at those particular genetic
21 loci.

22 Q. Right. You gained the statistic
23 frequency in Mr. Simmons, not the statistic of a random
24 profile that could have contributed to the semen from
25 the vaginal swab?

1 A. Well, when you give the frequency of
2 occurrence of Mr. Simmons' profile, that really is how
3 often you would expect to find that individual in the
4 population with that set of genetic markers.

5 Q. In the male fraction, there is DNA that
6 you attribute to Mrs. Boyd?

7 A. Correct.

8 Q. But you have no way of knowing that. You
9 just find that it conveniently fits and you can exclude
10 those unknown alleles?

11 A. Well, it's based on a number of
12 observations from myself and others in the field that
13 you when you perform a male fraction of a vaginal swab,
14 you typically can get some female DNA that will be
15 present in that male fraction. It's designed to enrich
16 for male DNA. Sometimes it does it quite well. Other
17 times, it doesn't do it quite so well. In this
18 particular case, there was certainly DNA that was
19 consistent with being from the victim.

20 Q. Well, it's designed to enrich all the DNA
21 that's there, right?

22 A. Well, it's designed to enrich for sperm
23 cells. Essentially, you're doing a, what's called a
24 differential lysis, and you enrich for the male cells by
25 lysing or breaking open the epithelial cells first and

1 liberating their DNA, which is typically the vast
2 majority will be female DNA in that female fraction.
3 And then whatever is left over, you then break open
4 those cells and liberate any DNA from those sperm hits,
5 which would be from the male DNA.

6 Q. That's because the sperm, the coating
7 around the sperm holding in the DNA is much tougher than
8 the coating holding in the epithelial DNA. You could
9 break apart that epithelial DNA, wash it away and then
10 be left with mostly just the sperm DNA?

11 A. You're basically correct. The epithelial
12 cells are a little easier to break open. You use one
13 detergent to do that. You then spin the cells that are
14 left over, which are typically sperm heads, and you can
15 then lyse those with a different chemical that will
16 break open those cells and liberate their DNA.

17 Q. Had you ever calculated a mixture
18 statistic prior to the Simmons case?

19 A. Yes.

20 Q. One more time, why didn't you do it in
21 the Simmons case?

22 A. Well, again, based on the evidence that
23 we had from genetic testing, it was consistent with it
24 being a mixture. It was accounted for by the victim and
25 the defendant in this case.

1 Q. And like you said, you don't know if two
2 or more people could have contributed to these samples?

3 A. That's correct.

4 Q. If there was information out there
5 indicating that there were more than one person
6 contributing to the male fraction of the sample, you
7 would have calculated your numbers differently?

8 A. That's correct. I think we already went
9 over that, but that's correct.

10 Q. And in that case, the one in 500, 419
11 number would be more appropriate?

12 A. That is certainly a calculation that
13 reflects a mixture calculation, yes.

14 Q. And the reason you use the single source
15 statistic is because you attribute all of the DNA
16 alleles that don't line up with Mr. Simmons to
17 Mrs. Boyd?

18 A. Well, again, I mean, I think I've stated
19 this a number of times, but I'll try it one more time.
20 Based on the totality of the genetic evidence that we
21 obtained, the evidentiary results from the male fraction
22 were consistent with it being a mixture, which included
23 both the victim and the defendant, and as a result, I
24 made a calculation for the frequency of occurrence of
25 the defendant with those genetic markers.

1 Q. Why would you include the loci in that
2 statistic where Ms. Boyd and Mr. Simmons had the same
3 DNA?

4 A. Again, my calculation was for a single
5 source, that being the profile of Mr. Simmons and all
6 the genetic markers that were tested.

7 Q. But if they're the same profile at a
8 genetic site, aren't you just assuming that he's there,
9 too, as opposed to it being just her?

10 A. Well, you certainly cannot exclude both
11 the victim and the defendant at those genetic markers
12 where they have the same profile. They would overlap
13 each other, essentially.

14 Q. Right. So you're assuming that his DNA
15 is showing up there and that it's not some other male
16 DNA that's dropped out or that is not otherwise visible?

17 A. That's why you need to look at all the
18 results at all the genetic markers, not just focus on
19 them one at a time. You need to look at the totality of
20 the evidence to make your final conclusion.

21 Q. Which is why it's important to run the
22 same genetic test on all of the knowns, all of the known
23 standards, right?

24 A. Correct.

25 Q. Which is why it's important to run

1 Mrs. Boyd's known results for the CTT test?

2 A. That would be helpful, yes. Again, I
3 don't know whether that test was run or not. There's
4 nothing that I have in front of me from the reports that
5 were generated or the notes that I have to indicate that
6 her profile was obtained, although it's certainly
7 possible that there was some data obtained from testing
8 her sample alone at CTT.

9 Q. So when you testified to the jury that
10 there was a one in 8 million chance of somebody else
11 besides -- you did not testify that there's a one in
12 8 million chance of somebody besides Mr. Simmons
13 contributing to this evidence sample? That's not your
14 testimony?

15 A. Well, I believe I testified that the
16 results obtained from the genetic tests that we
17 performed were consistent with it being a mixture that
18 did not exclude the victim or the defendant. And the
19 frequency of occurrence of the defendant's profile at
20 the genetic markers that were tested was approximately
21 one in 8 million individuals in the African-American
22 population.

23 Q. And I believe you went on to say, in
24 other words, one person in 8 million would have the
25 profile that we see in Mr. Simmons?

1 A. Correct.

2 Q. And if I asked you to calculate the
3 probability of selecting an unknown male who could have
4 contributed to the evidentiary sample, that would be a
5 different number?

6 A. Correct.

7 Q. That would be one in 500, one in 419?

8 A. Somewhere around there, yes.

9 MR. YOUNG: Thank you. That's all the
10 questions I have, Doctor.

11 REDIRECT EXAMINATION

12 BY MR. ZALENKA:

13 Q. Dr. Baird, I just have a few questions.
14 When you viewed the Exhibit Number 8 and Number 9
15 dealing with the CTT test of January 23rd and
16 January 29, did those tests appear to exclude
17 Mr. Simmons as a contributor to the samples?

18 A. No, they did not.

19 Q. With respect to random match probability,
20 again, why did you not utilize those calculations in
21 your assessment in this particular case?

22 A. Based on the information that we had and
23 the results from the testing that was performed, it's
24 inconsistent that the evidentiary sample was a mixture
25 of the victim and the suspect, and the calculation I

1 gave was a calculation for how often you would see that
2 particular suspect profile in the African-American
3 population.

4 Q. And with respect to the initial report of
5 January 23 and the second report from February, you
6 corrected the mathematical error which you made in that
7 initial report in making your final calculations that
8 you testified to; is that correct?

9 A. Correct.

10 MR. ZALENKA: Just one moment.

11 I believe I have no further questions.

12 Thank you.

13 RECROSS-EXAMINATION

14 BY MR. YOUNG:

15 Q. One more question, Dr. Baird, and I'm
16 back to Page 15.

17 A. Okay.

18 Q. The one for Mr. Simmons, this 10, 11, 10,
19 11, 7, 8, that's different from what's reflected in your
20 report?

21 A. Correct.

22 Q. Your report does not indicate any results
23 for the evidentiary sample, which would be 8, 4, which
24 are reflected here?

25 A. Are you talking about CTT?

1 Q. Yes, sir.

2 A. Correct.

3 Q. As a matter of fact, there's a note
4 that's saying that this sample was completely used up?

5 A. Correct.

6 Q. And the one CTT test where the samples
7 are listed in a lane, there are no results?

8 A. Correct.

9 Q. And the 8, 6 numbers down here, if these
10 numbers are correct, this 10, 11, 10, 11, 7, 8 --

11 A. Yes.

12 Q. -- if those numbers are correct, then
13 Mr. Simmons would be excluded as a possible contributor?

14 A. I would not make that determination based
15 on what I've seen.

16 Q. He would be a 10, 12 as you reported, and
17 this indicates that the evidentiary sample was a 10, 11?

18 A. Correct. I believe that the evidentiary,
19 the document that you're holding in your hand, which,
20 again, I don't really recall, is not part of our report,
21 is not in my notes here. That appears to be a
22 typographical error. It should be not a 10, 11 but a
23 10, 12 at CTT. I'm sorry. It's CSF1PO, 10, 12.

24 Q. Do you know -- you don't know whether or
25 not this document is State's Exhibit 24 from the trial?

1 A. I really don't remember. I don't recall.

2 Q. Okay. And that wasn't introduced during
3 your testimony. That was introduced during Miss Crane's
4 testimony?

5 A. I believe so, yes.

6 MR. YOUNG: Thank you, Dr. Baird. That's
7 all the questions I have.

8 THE WITNESS: Okay. Thank you.

9 MR. ZALENKA: Nothing on redirect. Thank
10 you, Doctor.

11 THE WITNESS: Okay. Thanks, guys.

12 VIDEOGRAPHER: We're off the record. The
13 time is 12:09.

14 (Off the record.)

15 MR. YOUNG: I want to ask you if you'd
16 agree to admit Affiant's Number 17, which would
17 be the scans that I put the red numbers on that
18 you have the PDF of. They're the color copies.

19 MR. ZALENKA: Yes. I don't have a
20 problem with that.

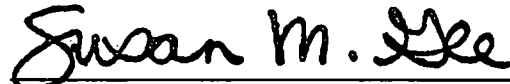
21 MR. YOUNG: They are already part of the
22 record, but I've altered them by numbering them
23 at the top, and they're identified and on the
24 record as 17-89.

25 MR. ZALENKA: I think he was referencing

1 a different Number 1, so 7, and I think it was
2 accurate.

3 MR. YOUNG: We've got an agreement?

4 MR. ZALENKA: We're fine.

5
6 

MICHAEL LEONARD BAIRD, Ph.D.

7 Signed by reporter pursuant to Civil Rule 30(e).
8 Reason Deposition not signed by witness within
the allotted time - - -

9 DEPOSITION CONCLUDED AT 12:15 P.M.

10 - - -

1 a different Number 1, so 7, and I think it was
2 accurate.

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5
6 MICHAEL LEONARD BAIRD, Ph.D.

7
8 - - -
9 DEPOSITION CONCLUDED AT 12:15 P.M.
10 - - -

C E R T I F I C A T E

State of Ohio :
County of Hamilton : SS

I, Susan M. Gee, RMR, CRR, the undersigned, a duly commissioned notary public within and for the State of Ohio, do hereby certify that before the giving of his aforesaid deposition, MICHAEL LEONARD BAIRD, Ph.D., was by me first duly sworn to depose the truth, the whole truth and nothing but the truth; that the foregoing is the deposition given at said time and place by MICHAEL LEONARD BAIRD, Ph.D.; that said deposition was taken in all respects pursuant to stipulations of counsel; that I am neither a relative of nor employee of any of their parties or their counsel, and have no interest whatever in the result of the action; that I am not, nor is the court reporting firm with which I am affiliated under a contract as defined in Civil Rule 28 (D).

IN WITNESS WHEREOF, I have hereunto set my hand and official seal of office at Cincinnati, Ohio, on this 15th day of October, 2010.


My commission expires: 31 Susan M. Gee, RMR, CRR
September 20, 2010. Notary Public - State of Ohio



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1 STATE OF SOUTH CAROLINA

COURT OF COMMON PLEAS

2 COUNTY OF DORCHESTER

3

4 KENNETH SIMMONS,

5 Petitioner(s),

6 vs.

Case No: 2005-CP-18-1368

7 STATE OF SOUTH CAROLINA,

8 Respondent(s).

CERTIFIED COPY

9

10 D E P O S I T I O N

11 WITNESS: LAUREN M. CRANE

12 DATE: Monday, November 29, 2010

13 TIME: 2:07 p.m.

14 LOCATION: Office of the Attorney General
1000 Assembly Street, 7th Floor
15 Columbia, South Carolina

16 TAKEN BY: Attorneys for the State of
South Carolina

17

REPORTED BY: SHERI L. BYERS
18 Registered Professional Reporter

19 - - - - -

20

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15

16 ALSO PRESENT:

17 STEVE LAMBERT

18

19

20 (INDEX AT REAR OF TRANSCRIPT)

21

22

23

24

25

1 STIPULATION: It is stipulated among
2 counsel that this deposition is being taken in
3 accordance with the South Carolina Rules of Civil
4 Procedure, and that the deponent reserves the right
5 to read and sign the deposition transcript.

6 - - - - -

7 LAUREN M. CRANE, being first duly
8 sworn, testified as follows:

9 EXAMINATION

10 BY MR. ZELENKA:

11 Q. Okay. Ms. Crane, this is a deposition
12 entered what we call de bene esse for purposes of the
13 Postconviction Relief Hearing involving Kenneth
14 Simmons versus State of South Carolina, a case that
15 you testified in in 1999.

16 For purposes of the deposition, I need to
17 advise you that you have the right to review the
18 deposition and make any grammatical corrections,
19 spelling corrections within the deposition or you can
20 waive that right at this time.

21 I can't advise you whether you should or
22 shouldn't. That's your right as a witness for
23 purposes of depositions. But I need to give you that
24 advice right now and ask you if you desire to waive
25 signing of the deposition or would you agree to have

1 it submitted as is by the court reporter?

2 A. Could I read it prior? I would like to
3 read it.

4 Q. Okay. That's fine. That's your right.

5 Ms. Crane, state your address for the
6 record, please.

7 A. [REDACTED],
8 New York 10598.

9 Q. Okay. Ms. Crane, what's your educational
10 background?

11 A. I have a bachelor's degree in biology from
12 Iona College and a master's degree in forensic
13 science from John Jay Criminal Justice in Manhattan.

14 Q. And that was in 1995?

15 A. Yes.

16 Q. What's your current employment?

17 A. I currently work for a company called
18 Boehringer Ingelheim. It's a pharmaceutical company
19 in drug surveillance as a compliance manager.

20 Q. Basically what are your duties at
21 Boehringer?

22 A. I ensure that we adhere to the FDA
23 regulations for our pharmaceutical products and
24 prepare and present to the FDA during audits and
25 monitor our compliance and our quality assurance for

1 drug surveillance.

2 Q. Okay. And you've been there since 2006?

3 A. Yes.

4 Q. Prior to that, briefly, how were you
5 employed?

6 A. I was working at a small pharmaceutical
7 company as the manufacturing manager for an American
8 Diagnostica, it's called.

9 Q. And prior to that were you with Lifecodes?

10 A. Yes.

11 Q. And what was your job duties with
12 Lifecodes?

13 A. I was first a cancer technology
14 technologist, then a paternity technologist, then a
15 forensic scientist, a senior scientist. And then I
16 became in charge of the international quality
17 assessment scheme, which we created proficiency test
18 kits for the forensic community to prove proficiency
19 every 180 days.

20 Q. And in your role with Lifecodes, did you --
21 were you subject to testifying as an expert witness?

22 A. Yes.

23 Q. Approximately how often did you testify as
24 an expert witness, if you recall?

25 A. I probably testified about a hundred times.

1 Q. Okay. And, generally, what did that
2 testimony involve?

3 A. It involved presenting DNA analyses in a
4 court setting.

5 Q. Okay. And in 1999, when you testified in
6 the Simmons case, you were a senior forensic
7 scientist; is that correct?

8 A. Yes.

9 Q. And what were your duties at that time?

10 A. To process biological materials for the
11 extraction of DNA and perform DNA typed analysis on
12 those samples for the purposes of comparison.

13 Q. Okay. And did you testify in both civil
14 and criminal cases at that time?

15 A. Yes. Yes.

16 Q. In 1998 when some of this DNA testing was
17 done, did -- that's interesting. Something just
18 popped up on the screen from it looked like
19 Dr. Michael Baird. Is that correct?

20 MR. YOUNG: That's what it looked like to
21 me.

22 THE WITNESS: Mike's there? Mike's ghost
23 is there?

24 MR. ZELENKA: I don't exactly know what's
25 going on.

1 BY MR. ZELENKA:

2 Q. But in 1998 what were your duties at the
3 time you did the analysis in Mr. Simmons' case?

4 A. To extract DNA from the samples that were
5 sent from the crime lab and extract DNA and perform
6 DNA analyses on them.

7 Q. Okay. And at that time who were you
8 supervised by?

9 A. Dr. Michael Baird.

10 Q. Okay. And what was his role in supervising
11 you?

12 A. He would review all the analyses, prepare
13 court documents, do the statistical calculations for
14 the DNA typing.

15 MR. ZELENKA: Okay. At this time I would
16 like to introduce as State's Exhibit 1 a current
17 resume of Lauren M. Crane that I provided to counsel
18 as Exhibit 1.

19 MR. YOUNG: No objection.

20 (DEFT. EXH. 1, Resume of Lauren M. Crane,
21 was marked for identification.)

22 MR. ZELENKA: At this time I move to
23 qualify Ms. Crane as an expert in forensic DNA
24 testing and analysis.

25 MR. YOUNG: Without objection. I think

1 she's already been qualified.

2 BY MR. ZELENKA:

3 Q. Okay. Ms. Crane, have you had the
4 opportunity to review your testimony --

5 A. Yes.

6 Q. -- from the 1999 trial?

7 A. Yes.

8 Q. Do you concur in your testimony?

9 A. Yes.

10 Q. Have you reviewed the test results as it
11 relates to Kenneth Simmons' analysis?

12 A. Yes.

13 Q. Particularly the January 23rd, 1998, letter
14 report and the February 2, 1998, letter reports
15 involving Kenneth Simmons?

16 A. Yes.

17 Q. Have you reviewed documentation that's been
18 provided through me and through Mr. Simmons' lawyers
19 concerning the reports from Lifecodes and the results
20 of those data that you had tested from 1996 through
21 1999?

22 A. Yes.

23 Q. Do you have any revisions to your
24 February 2, 1998, report?

25 A. February 10th, is what you said?

1 Q. February 2nd, 1998.

2 A. February 2nd, 1998.

3 That's the report referring to the blood of
4 Kenneth Simmons and the PCA analyses related to that,
5 the polymarker and the DNA alpha results and the CTT
6 results, correct?

7 Q. Correct.

8 A. No, I do not.

9 Q. Okay. With respect to the CCT -- or CTT
10 testing report that was done on that be February 2nd,
11 it reveals the CFF1PO analysis was at 10, 12; is that
12 correct?

13 A. Correct.

14 Q. Have you reviewed your the data that you
15 have in front of you that had been previously been
16 provided to you and do you stand by that result?

17 A. Yes, that's correct.

18 Q. Okay. And what were those results based
19 upon?

20 A. The running of the DNA of Mr. Simmons for
21 CTT PCR amplification process.

22 Q. Okay. And in the conclusion of the report
23 of Lifecodes, it reflected that the types did not
24 exclude Kenneth Simmons as a contributor; is that
25 correct?

1 A. That's correct.

2 Q. And do you stand by that result?

3 A. That's correct.

4 Q. Okay. You did not do the statistical
5 analysis in this particular case, did you?

6 A. No.

7 Q. That was done by Dr. Michael Baird?

8 A. Yes.

9 Q. All right. Did you review Mr. Baird's
10 statistical analysis, or did Mr. Baird complete that
11 analysis and assessment on his own?

12 A. He completed that on his own.

13 Q. Okay. Why did you base your results on the
14 February 9 -- February 2nd, 1998, results on the
15 January 29th CTT testing rather than the January 23rd
16 CTT testing?

17 A. The January 3rd CTT testing, in my opinion,
18 is inconclusive because of the short run and the
19 inability to distinguish accurately between the
20 bands, in addition to the amount of DNA that is
21 present in the Kenneth Simmons' lane is in abundance
22 and obscures the result from which you can make any
23 clear determination.

24 Q. Okay. But you're confident that the
25 January 29th testing was sufficient for the purposes

1 of your results?

2 A. Correct.

3 Q. There's been a question raised in this case
4 about the number of contributors that Lifecodes
5 determined were involved in these particular
6 specimens, the vaginal specimens that were involved
7 in this case. Are you aware of that issue?

8 A. To some degree.

9 Q. Okay. Why did you limit in your report an
10 opinion that in fact other than the victim itself
11 that there was generally one other contributor?

12 A. Based on the PCR results, specifically the
13 polymarker, DQ alpha results were that were run
14 initially in this test, the banding pattern exhibited
15 more than one contributor by the nature of showing
16 multiple alleles for each loci that was reviewed.

17 Q. Okay. Did either the January 23rd, 1998,
18 CTT run or the January 29th, 1998, CTT run or the
19 other testing that was done by Lifecodes, in your
20 opinion, eliminate Kenneth Simmons as a contributor?

21 A. No.

22 Q. There's been a question raised about a
23 missing page from the lab notebook inasmuch as there
24 was no specific reference to the materials received
25 concerning the January 23rd, 1998, CTT testing. What

1 is your understanding as to the manner that the
2 reports were done by you in January 1998 and whether
3 or why there's no data on that particular test other
4 than the gel itself?

5 A. Well, first of all, I don't have access to
6 any of the original files or my notebooks, so I can't
7 effectively comment on where that information is
8 currently to support -- additionally support the run.

9 That run -- actually, both CTT runs were
10 done way later after these samples -- after the PCR
11 results were done, and that's because we didn't have
12 that technology at the time when we initially
13 extracted the DNA photos of initial tests. And with
14 those -- with those runs, it was difficult to analyze
15 those results because of the nature of the amounts of
16 DNA that's present. So you have one sample in more
17 abundance than the other of that being the victim and
18 more abundance than the other example, so when it
19 amplifies it stays in the same ratio which makes it
20 difficult to interpret.

21 The runs -- it's equivalent to taking a
22 picture of an object. You know, you have the object
23 is constant, but you can have an overexposure or
24 underexposure or not enough lighting or variables
25 that make details of that picture obscured. So it's

1 the same concept when you run a gel, you know,
2 various things can happen. The DNA didn't change.
3 The same DNA was run in both instances. One was less
4 conclusive than the other.

5 Q. Okay. In the Lifecodes material, I've
6 previously shown you what is the January 15th data,
7 page 33 of the notebook, which was the Bates-stamp
8 page 150.

9 Do you have access to that?

10 A. Yes. I'm turning to it. Okay.

11 Q. Okay. And I will refer you to about
12 one-third up from the bottom of the page. Is that
13 your handwriting?

14 A. Yes, it is.

15 Q. Okay. And where it says "note," please
16 state for the record what that says.

17 A. "No sample 563884 left."

18 Q. Okay. And in your terms of use, what did
19 that mean at that time?

20 A. There was no more of that DNA sample left
21 to do any further amplifications. We had exhausted
22 that sample for all the previous DNA analysis we had
23 attempted.

24 Q. Okay. Now, with respect to the testing
25 that was done by you, why was no CTT testing done of

1 the victim's sample?

2 A. I believe there was. The sample was 63 --
3 56389. And if you looked at the sample on the -- I
4 believe it's gel 7, there's a lane there that's
5 labeled 56389.

6 Q. Okay. And what did that material give you
7 as far as your assessment as to the CTT?

8 A. It contributed to the -- the banding
9 pattern that's in existence for the other samples
10 run.

11 Q. Okay. Now, referring -- jumping around a
12 little bit. Referring to what I would call the
13 chart, which is a Bates-stamped page 15.

14 A. Yes.

15 Q. Did you prepare this chart?

16 A. No.

17 Q. Do you have reason to believe who likely
18 prepared this chart?

19 A. I believe it was Mike Baird in preparation
20 for trial.

21 Q. Okay. Is the chart accurate with respect
22 to the report on Kenneth Simmons' blood related to
23 the CTT test?

24 A. No. He has an incorrect allele present for
25 the CF1PO allele loci. It should be 10, 12, not 10,

1 11.

2 Q. Okay. Do you know the accuracy of those
3 same allele loci with respect to the vaginal swabs?

4 A. It looks like it's incorrect for the entire
5 lane where he has entered 10, 11 in each instance.

6 Q. Okay. And what should those numbers be
7 based upon your analysis?

8 A. Based on the results from the gel, it
9 should be 10, 12.

10 Q. So each of those should be 10, 12 rather
11 than 10, 11?

12 A. Correct.

13 Q. Okay. Based upon your testimony at trial,
14 do those numbers reflect any error or mistake upon
15 your particular analysis as far as the likelihood as
16 to whether Kenneth Simmons is eliminated as a
17 contributor to these specimen?

18 A. I didn't testify to the likelihood based on
19 this chart. This was prepared by Dr. Baird.

20 MR. ZELENKA: Okay. At this time I have no
21 further questions.

22 MR. YOUNG: I'm just going to turn this
23 around.

24 EXAMINATION

25 BY MR. YOUNG:

1 Q. Dr. Crane.

2 A. Hi.

3 Q. My name is Boyd Young. I'm going to back
4 up just a little bit and talk about some of the
5 things that you talked about with Mr. Zelenka first,
6 okay?

7 A. Sure.

8 Q. You have your two reports -- the written
9 reports in front of you, the January 23rd, 1998, and
10 the February 2nd, 1998.

11 A. Hang on. Let me -- is there a Bates stamp
12 on that to make it easier?

13 Q. Sure. 43 is the January -- is the
14 beginning of the January 23rd report, and 47.

15 A. Yes.

16 Q. Referring to the -- you're the only one who
17 signed either one of those reports as having prepared
18 them; is that correct?

19 A. Yes. I'm the one who signs it, yes.

20 Q. Okay. You didn't sign -- you signed it --
21 did you review the statistics prior to signing the
22 report?

23 A. I don't calculate the statistics. Our
24 policy, our procedure was the scientist would sign
25 the report. Mike contributes the statistical

1 analysis portion of the report. His name is also
2 listed on the report under mine.

3 Q. Okay. So you never even reviewed the
4 statistics that he put in here before signing your
5 name to it?

6 A. Right. He's responsible for the
7 statistics. I'm responsible for the allele type
8 that's put there.

9 Q. And the correction of the mathematical
10 error between the January 23rd report and the
11 February 2nd report, you didn't have anything to do
12 with that?

13 A. Correct.

14 Q. You didn't even know it was done?

15 A. I would not have reviewed that. That's his
16 contribution to the report.

17 Q. Okay. And so the reason that you wouldn't
18 have documented that there was an error and it had
19 been corrected is because you didn't look at it?

20 A. Correct.

21 Q. One of the questions that Mr. Zelenka asked
22 you is, "Why did you only include Mr. Simmons?"

23 And you said you didn't. You took into
24 account the possibility of more than one contributor
25 to the evidentiary sample.

1 A. Correct.

2 Q. That your report is strictly based on the
3 results of Mr. Simmons' known standard?

4 A. Correct.

5 Q. It does not take into account the
6 evidentiary standard --

7 A. Correct.

8 Q. -- the evidentiary sample, correct?

9 A. Correct.

10 Q. Or who may or may not have contributed to
11 the evidentiary sample?

12 A. Correct.

13 Q. So you certainly leave open the possibility
14 that there was more than one perpetrator in the
15 evidentiary sample?

16 A. That's a possibility, correct.

17 Q. You've also reviewed your testimony from
18 the trial of this case.

19 A. Correct.

20 Q. And I want to ask you some questions about
21 what you and Mr. Zelenka were referring to as page
22 15, the chart that Dr. Baird prepared.

23 A. Correct.

24 Q. It seems to me that you testified about
25 this chart as State's Exhibit Number 24 for the

1 State.

2 A. And at the beginning of my testimony I was
3 asked if I had previously reviewed the chart that as
4 a combination prepared to show the results, and my
5 answer was, no, not -- not recently, no. So the
6 first time I saw that chart was when we were in
7 court.

8 Q. All right. You said, "Not recently, no."

9 A. Right. And then he said, "Let me hand you
10 the report."

11 Q. Would that chart be of assistance to you in
12 explaining to the jury the results of your PCR
13 analysis?

14 A. Right, because it had the types that were
15 listed there.

16 Q. Okay. And then you all had it blown up and
17 you got down and you all went through the report,
18 right? Through the chart?

19 A. We talked about PCR. We didn't go through
20 all the details of each allele. We talked in
21 generality about it. We didn't go through every
22 single allele type.

23 Q. Do you have a copy of your testimony in
24 front of you --

25 A. Yes.

1 Q. -- or with you?

2 I'm going to refer you to page 1466.

3 A. Yes.

4 Q. I'm going to skip down to line 10.

5 A. Right. Okay.

6 Q. Okay. And that's where you first start
7 talking about the line that says, "Kenneth Simmons'
8 blood," right?

9 A. Correct.

10 Q. And you said, "Yes, the second one. The
11 second line."

12 And it is the second line on this page 15
13 chart, right?

14 A. Right.

15 Q. This is the chart that you were referring
16 to when you made that statement, right?

17 A. Correct.

18 Q. Okay. Now, it says, "Okay. Could you run
19 over that for the jury and explain what your findings
20 were there."

21 Right?

22 A. Right.

23 Q. And your answer was, "We tested for the
24 same polymarker, D2 alpha, and for additional
25 something we call --" it should be CTT --

1 A. Correct.

2 Q. -- but the transcript reads "TPC"?

3 A. Right.

4 Q. "-- which is a different type of testing.
5 IT gives us a banding pattern. And those bands are
6 discerned by these numbers."

7 Right?

8 A. Right.

9 Q. And the numbers that you said were "10,
10 11"?

11 A. Right. Reading it from the chart, not
12 looking at the gel and not having seen this chart
13 before. Assuming that this chart was prepared by
14 Mike and it was correct. I stated I had not seen
15 this chart before that moment.

16 Q. Well, you said you hadn't seen it recently.
17 You mean you had never seen it prior to it being
18 shown at trial?

19 A. I had not seen that chart that they
20 prepared for the court, no.

21 Q. Okay. So when you said that your findings
22 were at 10,11, you were just reading off the chart,
23 assuming the chart was correct. In actuality, the
24 chart was incorrect?

25 A. Correct.

1 Q. Okay. The numbers that you attribute to
2 this sample fit Kenneth Simmons' blood -- I'm going
3 to call it the 55 sample, just referring to the last
4 two numbers, okay?

5 A. That's fine. Yeah.

6 Q. You got 10, 12?

7 A. Right.

8 Q. Should be the first one, right?

9 A. Correct.

10 Q. The next line over, the TPOX 10, 11, is
11 that number correct or is that number incorrect?

12 A. That's correct.

13 Q. That number is correct.

14 How about the 78?

15 A. That's correct.

16 Q. These numbers, where are you getting them
17 from?

18 A. Those were from the gel run, which is also
19 in the official report that was issued that we
20 referred to as Bates-stamp 47.

21 Q. Okay. The next line down, the next line
22 down on the page 15 chart that was prepared by
23 Dr. Baird.

24 A. Correct.

25 Q. That says it's a vaginal swab and saline

1 from MUSC male fraction and gives a number of
2 F156384.

3 A. Correct.

4 Q. That sample is the same sample that you
5 referred to on page 150; is that correct?

6 A. Yes, that's correct.

7 Q. That sample did not exist --

8 A. Correct.

9 Q. -- any longer?

10 A. Correct.

11 Q. There is no line for that sample in the CTT
12 gel?

13 A. Correct.

14 Q. Because that sample didn't exist anymore?

15 A. Correct.

16 Q. So none of those values are accurate for
17 that evidentiary sample?

18 A. For the CTT portion of that evidentiary
19 sample.

20 Q. Right. So that should be blank?

21 A. Correct.

22 Q. There should be no numbers there?

23 A. Correct.

24 Q. Okay. Let's move down to the next line
25 where there are CTT results, and that would be the

1 one from the bottom, F156386.

2 A. Right.

3 Q. That's an evidentiary sample?

4 A. Correct.

5 Q. There's no report in your notes anywhere
6 listing what values you assign to that evidentiary
7 sample?

8 A. Correct. Because there was no final report
9 that was ever created for the CTT results. So these
10 results were generated by Mike prior to trial. Our
11 official reports were based on the PCR, DQ alpha, and
12 polymarker results --

13 Q. So that --

14 A. -- and subsequent analysis, and I'm
15 guessing he prepared this for court to review when we
16 got to court.

17 Q. So that should -- those should all be blank
18 as well?

19 A. No. There was a result of the 56386, as
20 you can see from the gel result; however, he's got
21 the incorrect -- again, he transcribed incorrectly
22 10, 11 instead of 10, 12.

23 Q. Are you looking at the CTT results now?

24 A. Yes.

25 Q. Okay.

1 A. Yes.

2 Q. And that's where you're getting those
3 numbers from?

4 A. Correct.

5 Q. And this would be from the -- I guess the
6 January 29th run of the test?

7 A. Correct.

8 Q. And just for a brief second, let me go back
9 to the January 23rd run of the test.

10 For whatever reason, the test didn't run
11 correctly?

12 A. The test was inconclusive based on the run,
13 the gel run.

14 Q. There are no reliable evidentiary values
15 that you would attribute to this gel?

16 A. Correct.

17 Q. The whole thing should be discarded?

18 A. Correct. Hence there's no reports on CTT.

19 Q. You did not report that you ran it on the
20 23rd and came up with inconclusive or unusable
21 results?

22 A. I don't know that because I don't have my
23 notebooks to show that. We didn't utilize these
24 results, so I don't have any of my original notebooks
25 to refer to. Those pages were probably not copied

1 because those results were not utilized.

2 Q. So you suspect that what you have in front
3 of you that's attributed to as to Lifecodes' file is
4 incomplete?

5 A. Correct.

6 Q. That does not include all the information
7 that you had at the time?

8 A. Most likely correct.

9 Q. As far as you know, there was no additional
10 information, other than what you have in front of
11 you, sent to the defense?

12 A. I have no idea. I don't recall. I don't
13 have the original case files or access to any of the
14 original documents that were -- you know, that we
15 utilized then.

16 Q. Okay. So there are additional documents
17 that we don't have access to for the purposes of this
18 deposition or at the time of the trial?

19 A. There could have been and it could have
20 been at the time of the trial that we had access to
21 those documents in our folder and never utilized
22 them. They were never copied or forwarded. I don't
23 know. It's changed hands so many times since then.

24 Q. Okay. I had sent -- and I don't know that
25 you got a copy of it. I just want to see, just

1 because I thought it was easier to see, but this is
2 basically a closeup of the gel that was run on the
3 29th.

4 A. Yeah. I see it. I have it on my screen
5 over here, too.

6 Q. Okay. Good. Okay good.

7 All right. Let's start with the -- we were
8 just talking about the sample F156386, the last one
9 on the chart that has CTT results.

10 A. Correct.

11 Q. And that is the -- if I'm looking at this
12 closeup, that's the top line?

13 A. Correct.

14 Q. I see on the bands closest to the numbering
15 on the right-hand side, that would be where the
16 results for the CSF1PO results would be?

17 A. Correct. You hold it linear, so it would
18 be the top portion of the gel.

19 Q. Okay. And I see -- just for the record,
20 I'm looking at the January 29th, 1998, CTT results
21 gel also admitted as Affiant's 17-4.

22 Sorry about that.

23 So I'm looking at these bands that are
24 closest to the number 56386.

25 A. Yes.

1 Q. And basically there's a space -- you know
2 that they're 10, 12 because there's a space in
3 between them?

4 A. Yes. Yes.

5 Q. If there was -- if it was 10, 11, those
6 bands would be closer together in that first section?

7 A. Correct.

8 Q. Okay. Now, I'm looking at the second set
9 of results where the second ladder is, the TPOX
10 results.

11 A. Right.

12 Q. Now, can you tell me, you score that as a
13 10, 11?

14 A. Yes. His 55, you're talking about?

15 Q. No. I'm talking about the 86.

16 A. 86.

17 Q. Yes.

18 A. There's one homozygous band and there --
19 it's very faint. There's two slight bands that are a
20 10 and 11 above it.

21 Q. Okay.

22 A. But this is a three dimensional analysis in
23 the sense that this is an x-ray film, so it's
24 difficult to look at it in this perspective when the
25 DNAs are not proportionate and see, you know, faint

1 alleles or starter bands. There's a lot going on
2 there. When you have it on a light box and you
3 analyze it correctly, there are two very faint bands
4 there.

5 Q. What about that band that's in the 9
6 position, the strong band?

7 A. The one below it, is that what you're
8 referring to?

9 Q. The very dark band.

10 A. The 12 band.

11 Q. The 9 band.

12 A. Which -- I'm not sure, which loci are you
13 referring to?

14 Q. Sure. I'm looking at the second set with
15 the ladder. I'm sorry.

16 A. Right. It goes from top to bottom.

17 Q. Right.

18 A. So that's --

19 Q. I'm looking at the middle results.

20 A. That would be 12, not 9. You're reading it
21 upside down.

22 But, yes, I see the band you're referring
23 to.

24 Q. Oh, so that's a 12 band?

25 A. Yeah. It's upside down.

1 Q. Okay. So is there a 12 -- if that's a 12
2 band, why did you report it as a 10, 11?

3 A. I didn't report it as a 10, 11. We
4 reported Kenneth Simmons' type.

5 Q. So Kenneth Simmons is a 10, 11?

6 A. Correct.

7 Q. That band is in the 12 position.

8 A. Right. Which corresponds to the 389
9 sample.

10 Q. Okay. Which corresponds to the victim's
11 sample?

12 A. Correct.

13 Q. And she was a 12?

14 A. Correct.

15 Q. Do you see a 12 on the 86 sample?

16 A. 86?

17 Q. Yes, ma'am.

18 A. Yes.

19 Q. Did you ever report seeing a 12 on the 86
20 sample?

21 A. We did not do any official reporting on the
22 CTT analysis. The CTT analysis was introduced at
23 trial by Dr. Baird in an addendum to our PCR -- our
24 other PCR results. Hence why this is the only record
25 of any results that we have.

1 Q. You would agree with me that if there's a
2 12 in the evidentiary sample, which is the 86 --

3 A. Correct.

4 Q. -- Mr. Simmons is not -- he doesn't have a
5 12?

6 A. Correct.

7 Q. So you would have to either -- he would be
8 excluded if it was a pure sample?

9 A. We don't know that it is. We just know
10 what we see here.

11 Q. Okay. So where do you --

12 A. That would not include him or exclude him.
13 It's inconclusive, essentially.

14 Q. So who do you attribute that 12 band to?

15 A. The victim.

16 Q. Okay. And that's in the male fraction of
17 the vaginal swab?

18 A. Correct. There's an abundance of DNA, and
19 we attempt to extract the two cell types, the female
20 cells and the male sperm cells, with a differential
21 lysis. However, you have two issues going on here.
22 One, there's going to be abundance of her cells
23 there, which are going to be amplified. So if you
24 have a 10 to 1 situation where you have 1 percent of
25 his DNA and 9 percent of her DNA, they're going to

1 amplify in that same manner. So the more DNA present
2 is what you're going to visualize here. And since
3 the swab was taken from her body, it's, you know,
4 impossible basically to get all of the cells
5 physically separated from each other. Especially in
6 those inproportionate quantities.

7 Q. And I understand what you're saying. So
8 skipping down to the -- keep it in the same group,
9 the same TPOX grouping but move it down to the lane
10 for the 68555 sample.

11 A. Correct.

12 Q. You score that as what?

13 A. A 78.

14 Q. I thought you scored it was a 10, 11. This
15 is Mr. Simmons' known sample.

16 A. For the last loci? Are you referring to
17 the loci?

18 Q. No. I'm sticking with the middle one.

19 A. Oh, you're at the middle. Okay.

20 Q. I'm staying with the middle.

21 A. Okay. TPOX, okay. So it was 10, 11.

22 Q. Okay. That band up in front of I guess
23 what I will call 10, the band -- the light band to
24 the left of the two dark bands. Does that make
25 sense?

1 A. Can you hold it up and point to what you're
2 referring to because it's difficult to understand
3 what you're --

4 Q. Sure.

5 A. The band below it, yes. Yes.

6 Q. All right. Can you tell me why that's not
7 a 12?

8 A. That's what they call a stutter band. When
9 there's a lot of DNA, which there is here, you see
10 stutter band underneath. And that's just a product
11 of the amplification, when there's that much DNA
12 present.

13 Q. Okay.

14 A. It's a phenomenon of the PCR reaction.

15 Q. So but in the same run, just on the other
16 sample, the 86 sample at the top, you don't count
17 that as stutter, but you count it as a 10, 11?

18 A. The 86 female, are you talking about?

19 Q. Yes, ma'am. The one at the top.

20 A. Yeah. There's -- right. Stutter doesn't
21 occur above, it occurs below.

22 Q. Okay. So the gel runs basically the way
23 that I have the arrow drawn?

24 A. Right. Right. Exactly.

25 Q. Okay. Moving out to the last series, the

1 TH01 --

2 A. Correct.

3 Q. -- that would be the bands on the far -- I
4 can't get --

5 A. Is that the same?

6 Q. The far side of the page.

7 A. Yes.

8 MR. ZELENKA: Is that the left or right?

9 THE WITNESS: Hold it vertical and then
10 you'll be able to -- yes. So it's the very last --
11 that's the correct way.

12 BY MR. YOUNG:

13 Q. The bottom?

14 A. Right.

15 Q. On the -- looking at Mr. Simmons' results
16 the 68555 --

17 A. Yes.

18 Q. -- how did you score that?

19 A. That his blood type for that loci is 78.

20 Q. Okay. The evidentiary sample, the 86, 86
21 female fraction and 86 male fraction.

22 A. Correct.

23 Q. The 86 male fraction was run in two lanes
24 on the same test?

25 A. Correct.

1 Q. The 7 would be in the stutter position on
2 the 86 because, like you said, it occurs below it?

3 A. But it's extremely -- stutter is extremely
4 faint. You see the intensities for the real bands
5 versus the faint bands. So if you look below 8, you
6 can see a faint 7, which is a stutter band. 7, 8 --
7 actually, it's 9. You see below 8, there's like a
8 faint stutter band below the 8 band. It is extremely
9 light.

10 Q. So you don't attribute it to stutter here,
11 but you do attribute it to stutter at the other
12 sites?

13 A. I'm confused about which sample you're
14 referring to.

15 Q. And it's probably a poorly worded question.
16 On the 86 sample, looking at the TH01 lane or
17 grouping --

18 A. Right.

19 Q. -- what should -- should I refer to that as
20 lanes or groupings?

21 A. It's actually loci. So, in fact, one loci
22 is the C, then the other is the TPOX, then the other
23 is the THO loci.

24 Q. Looking at the THO loci --

25 A. Okay.

1 Q. -- on the 86 lane.

2 A. Yeah. The second, the last, the one
3 closest to the 68555.

4 Q. Okay. It was run twice, right?

5 A. Right.

6 Q. So it's on the top and then there's the
7 female fraction and then there's the male fraction
8 again?

9 A. Yes.

10 Q. Okay. Are you scoring one of these as
11 opposed to the other one? Did it run better in one
12 lane than the other one?

13 A. Again, there is no scoring done whatsoever.
14 There was an addendum analysis that Mike Baird
15 prepared when he looked at this, so there was no
16 conclusion that was drawn from any of these. And I
17 wouldn't render one right now based on looking at
18 this scanned image without having the autoradiograph
19 in my hand.

20 Q. Okay. I think we're getting to what I was
21 talking about. Mike Baird is the one who put in
22 these values on this page 15?

23 A. Correct.

24 Q. That was shown to the jury?

25 A. Correct.

1 Q. This is how he interpreted this CTT
2 results?

3 A. Correct.

4 Q. You disagree with his interpretation of
5 these results?

6 A. I don't disagree with his interpretation.
7 I disagree with the fact that he has -- he has a typo
8 for the type of the scoring here for the CF -- CSF1PO
9 loci. It should be 10, 12. And so the vaginal swab
10 labeled 638384, I don't think he meant to put a
11 result there. I think he possibly meant to put a
12 result where the female fraction was. I don't know
13 what he did when he prepared this and what conclusion
14 he made, but, you know, at this time point in time,
15 without having that in front of me as an
16 autoradiograph to review, I make no conclusion.

17 Q. Okay. Well, I thought when you were
18 explaining to me about the 86, when we were looking
19 at 86 --

20 A. Correct.

21 Q. -- on -- in the TPOX loci --

22 A. Yes.

23 Q. -- in addition to the 10,11 that you
24 attribute to Mr. Simmons, you also said that dark
25 band was a 12?

1 A. Correct.

2 Q. That 12 is not reflected on the chart
3 prepared by Dr. Baird?

4 A. Right.

5 Q. I mean, it's not there at all.

6 A. Correct.

7 Q. It's not a typo. It doesn't exist.

8 A. Correct.

9 Q. If you were to -- if you were interpreting
10 those results, you would write it differently. You
11 would write like you did on the -- on some of the
12 other results you would put like a dark 12 with a 10,
13 11 in parentheses?

14 A. Yeah, something to that effect. I don't
15 know what his intention was when he drafted this
16 chart to show which samples were in comparison. I
17 couldn't tell you.

18 Q. Okay. But the chart's misleading?

19 A. Correct. I didn't create the chart. I
20 have no idea what the intention there was.

21 Q. Okay. And you don't agree with the chart's
22 results as to any of the CTT testing?

23 A. Correct. There's a typo. It should be 10,
24 12.

25 Q. And a 12 should exist in the 86 sample?

1 A. Correct.

2 Q. And if you were doing it, you would
3 probably have listed the victim's known results,
4 which would be the 89 line at the bottom?

5 A. Correct.

6 Q. Because when you're comparing an
7 evidentiary sample to a known victim and a suspect,
8 you need to account for alleles that you don't
9 attribute to the suspect, right?

10 A. Could you rephrase that?

11 Q. Sure. When you're comparing an evidentiary
12 sample, like the TPOX results at 86, where you have a
13 12, 10 and an 11 results on the graph, on the
14 radiograph --

15 A. Correct.

16 Q. -- each person only has the possibility of
17 two alleles?

18 A. No more than two alleles, correct. In this
19 instance she's homozygous and has one allele.

20 Q. So you would account for the 12 in that
21 lane as most likely having come from Ms. Boyd, the
22 victim?

23 A. Correct.

24 Q. And the way that you would know that it
25 most likely came from her is you would have her known

1 results?

2 A. Correct.

3 Q. Without her known results, the evidentiary
4 samples results don't really mean anything?

5 A. We have her known results, so we can
6 compare it and say that it is possibly attributed
7 from her.

8 Q. Or it could be attributed to multiple
9 perpetrators?

10 A. Could be.

11 Q. I mean, that's one possible interpretation.

12 A. One possible interpretation, correct.

13 Q. And except for the fact that there may be
14 some lab pages that have been destroyed, there's no
15 results from you where you put the graph on the light
16 box and accurately attributed values to Ms. Boyd's
17 sample?

18 A. For this testing, no, there is no -- there
19 was no assessment. In my opinion, I would say -- if
20 I had to make a decision right this minute based on
21 these results, that, you know, it does not exclude
22 him. There's faint bands there that I can see, but
23 it doesn't exclude. But I would most likely lean
24 towards it's inconclusive but not exclusionary.

25 Q. And that's without the value of your

1 missing reports?

2 A. Right. And having the autoradiograph in my
3 mind.

4 Q. And having the -- this is the best that we
5 can do are these copies, right?

6 A. Right. Exactly.

7 Q. And you have the same quality scans that we
8 were able to get?

9 A. That actually looks better than what I
10 have. It's just a scan. Correct.

11 Q. Okay. Dr. Crane, in your job at Lifecodes,
12 did you ever calculate statistics or did you just not
13 do it in this case or --

14 A. No, that was not my function. Mike was the
15 expert in statistics, biostatistics.

16 Q. And you're not familiar with the manuals
17 talking about how to calculate statistics for mixed
18 samples?

19 A. No.

20 Q. You did write at the bottom of your -- both
21 of your reports that these were mixed samples?

22 A. Correct.

23 Q. And you would expect Dr. Baird to rely on
24 your report that says there are mixed samples?

25 A. And the results that he would have in front

1 of him, being the allele types and the pictures, and
2 he would review the autoradiographs.

3 Q. And it was his review of the radiographs
4 that led to the results that are reflected on page
5 15?

6 A. Correct.

7 Q. And while some of those, certainly one of
8 them, I guess, could be attributed to a typo?

9 A. Correct.

10 Q. There are other results that you disagree
11 with besides the typo?

12 A. I wouldn't say I disagree with them. I
13 don't know what his purpose -- what his intent was
14 when he put that additional line in there. It
15 doesn't seem complete.

16 Q. Would you agree that the 84 sample did not
17 exist?

18 A. Correct.

19 Q. So that should be --

20 A. Blank.

21 Q. -- blank?

22 A. Correct.

23 Q. So then the only other place for CTT
24 results would be on the 86 sample?

25 A. Correct.

1 Q. And we've talked about the first numbers
2 should be 10, 12?

3 A. Correct.

4 Q. And that there should at least be a 12 in
5 the TPOX line?

6 A. Correct.

7 Q. And if we had your complete file, we may
8 account for that 12 as having come from Ms. Boyd?

9 A. Right. We could see on the autoradiograph
10 her blood sample is there, and she has a 12 at that
11 location.

12 Q. But the fact is, there's no report that
13 lists what the results are at that 89 run?

14 A. Correct.

15 Q. At least not in the materials that you're
16 able to look at?

17 A. Right.

18 Q. And if Dr. Baird said that he never looked
19 at the CTT results, that would be incorrect because
20 he prepared page 15?

21 A. I cannot speak to what Dr. Baird did or did
22 not do.

23 Q. Okay. You didn't prepare that page, and
24 that page, as far as you know, was prepared by his
25 interpretation of the test?

1 A. Correct.

2 Q. Is the February 2nd, 1998, report your --
3 it says "additional report." Are there any other
4 reports in addition to this?

5 A. No. It's additional to the first report
6 that was issued, and then it just includes the type
7 of CTT for Simmons.

8 Q. If Mr. Simmons was run at the same time
9 as -- if the evidence -- evidentiary samples were run
10 at the same time as Mr. Simmons, why weren't those
11 results included in your report?

12 A. Because we did not make any conclusions
13 based on the results that we had. So our --

14 I just need to step away for one second. I
15 have to get my doorbell. Is that okay?

16 Q. Sure.

17 A. One second. Sorry.

18 (Off the record.)

19 THE WITNESS: Okay.

20 BY MR. YOUNG:

21 Q. I was asking you about -- a couple of
22 follow-up questions about the January 29th, CTT test.

23 A. Right.

24 Q. Mr. Simmons' profile was run in that test?

25 A. Correct.

1 Q. A report was generated that reflects what
2 you find his allelic values to be at those three
3 sites.

4 A. Right.

5 Q. There was an evidentiary sample,
6 specifically the 86 sample was run in that test, too?

7 A. Right.

8 Q. You did not reflect any values for the 86
9 sample in your report?

10 A. Right.

11 Q. Why not?

12 A. Because that report was just -- first of
13 all, that report is generated just based on
14 Mr. Simmons' values. And there was no, in my
15 opinion, conclusive result that I could generate that
16 I felt was conclusive with the CTT result.
17 Therefore, there was no official report that was
18 generated. And the subsequent report was prepared,
19 you know, at the time of trial.

20 Q. So -- okay. And I'm going to ask you
21 specifically with regard to the other sample that was
22 run at that time was 56389, which was Ms. Boyd's
23 known sample.

24 A. Correct.

25 Q. Your report didn't reflect any values for

1 that sample either?

2 A. Correct.

3 Q. And the reason that that -- results for
4 that sample weren't included were what?

5 A. Were the same. We made no official report
6 for the CTT results.

7 Q. If you made no official report for the CTT
8 results, what evidentiary value do they have --

9 A. I don't know.

10 Q. -- with regard to Mr. Simmons' case?

11 A. I don't know. I would say that based on
12 the results I'm seeing and based on the fact that I
13 have no conclusive report from that, that those
14 results were inconclusive.

15 Q. So when your final -- so basically for
16 comparison purposes to determine whether or not
17 Mr. Simmons is or is not a contributor to the
18 evidentiary samples in this case, you would not
19 include any of the CTT results?

20 A. Correct.

21 Q. You would just rely on the DQ alpha
22 testing?

23 A. And polymarker, correct.

24 Q. DQ -- right. Sorry. I didn't -- right. I
25 forget that that includes two. I apologize.

1 When you were asked at the end of your
2 testimony, "Would you state whether or not,
3 Ms. Crane, based on the tests that you've done that
4 are reflected on that chart, whether the DNA profile
5 for the male fraction of the vaginal swabs that was
6 taken from Lily Bell Boyd's autopsy by Dr. Nichols
7 was identical to the DNA profile on Kenneth Simmons'
8 blood on all nine loci or locations there?"

9 And your answer was, "Basically what we
10 found was a mixture, which we could not eliminate
11 Kenneth Simmons' blood as being a contributor to."

12 A. Correct.

13 Q. All right. Now, you didn't explain that
14 you were just relying on the DQ alpha and polymarker
15 results, not all nine loci?

16 A. Correct.

17 Q. But your testimony today is you were not
18 relying on the last three loci, just the first six?

19 A. I state that they are in -- based on my
20 results that I can see here and the scans that I
21 have, I cannot make a conclusion on those results.

22 Q. There's no report that says that you can't
23 make a conclusion on those results?

24 A. Correct.

25 Q. And as far as you know, the defense was

1 never told that you couldn't make a conclusion on
2 those results?

3 A. I have no idea what the defense was told.

4 Q. Okay. And when you read -- when you were
5 first shown the chart at trial and your testimony was
6 the 10, 11, you were reading from the chart that was
7 prepared by Dr. Baird that is incorrect?

8 A. Correct.

9 Q. If the CTT results don't have any
10 evidentiary value, any statistical analysis that
11 included those results would be incorrect?

12 A. Not incorrect. Again, without having the
13 actual notes and without having the autoradiographs
14 to look at, based on what I'm seeing here, I cannot
15 make a conclusive result.

16 If I have the autoradiographs and I can
17 confirm the alleles that I see more conclusively,
18 then they would not be exclusionary. It's still
19 either way they're not exclusionary. But based on
20 this result that I have in my hand, I cannot make an
21 assessment on this.

22 Q. Okay. And like the results on the
23 January 23rd test?

24 A. Correct. That's right.

25 Q. Those don't have any evidentiary value and

1 you can't make any conclusions about those results?

2 A. Correct.

3 Q. I'm going to go to the -- I'm going to skip
4 over to the DQ alpha polymarker test results.

5 A. Okay.

6 Q. And those are reflected on page 48 of --
7 Bates-stamp page 48 of the February 2nd, 1998,
8 results.

9 A. Yes.

10 Q. Well, actually what's reflected there are
11 the Mr. Simmons' DQ alpha polymarker results?

12 A. Correct.

13 Q. I'm trying to find the report where the
14 evidentiary DQ alpha polymarker results were listed.
15 And I know that they're on page 15, but that
16 wasn't -- as far as I know that Dr. Baird didn't make
17 any typos or leave out any alleles which should be
18 reported in there.

19 A. I have the page, but I don't know what
20 packet. The next page in my packet is Bates-stamped
21 21, so it may be 20. If that's what you're referring
22 to, where there's a chart that has the --

23 Q. That is correct. 20 would have the
24 evidentiary sample 84, 84 female fraction, 86, and 86
25 female fraction.

1 A. Correct.

2 Q. So those would be all the alleles that were
3 present in the DQ alpha, polymarker testing?

4 A. Correct.

5 Q. If we wanted to find out how many different
6 genotypes could have contributed to the evidentiary
7 sample, could we do that?

8 A. What do you mean by genotypes? In terms of
9 each one of these loci, the way this product or kit
10 is designed, there are only limited allele
11 combinations that you can have. So it's a test
12 strip --

13 Q. Right.

14 A. -- that amplifies and looks at basically
15 either one or two specific alleles. So for the first
16 one, LDLR, you have A and B. Similar to like a blood
17 type. You could be AB, A, B, or O. It's the same
18 kind of concept in that you can be like BA, you could
19 be B, or you could be AB. That type of situation.
20 So it's limited in what you can detect.

21 Q. So the genotype, somebody who's homozygous
22 A --

23 A. Correct.

24 Q. -- could have contributed to the
25 evidentiary sample?

1 A. Correct.

2 Q. Somebody who's homozygous B could have
3 contributed to the evidentiary sample?

4 A. Correct.

5 Q. Somebody who is AB could have contributed
6 to the evidentiary sample?

7 A. Correct.

8 Q. Those are the three possible genotypes that
9 could have contributed to the evidentiary sample at
10 the LDLR site?

11 A. Correct.

12 Q. We could do that for each one of these
13 loci?

14 A. Correct.

15 Q. We could say homozygous A for the GYPA?

16 A. Correct.

17 Q. Homozygous B?

18 A. Right.

19 Q. Or AB?

20 A. Correct.

21 Q. That's another three genotypes that could
22 have in combination --

23 A. Correct.

24 Q. -- account for all of those results?

25 A. Correct.

1 Q. If we did that for each site, do you agree
2 with me that there's 216 genotypes that could have
3 contributed to those results?

4 A. I don't know the exact number, but I'll
5 take your word for it.

6 Q. But that's how you would figure it out,
7 right? You would write out homozygous for each one?

8 A. Something to that effect. I'm not a
9 statistical biostatistician for genetics, so I'm not
10 really qualified to answer that.

11 Q. No. But this is just basically the pundit
12 square that you learned in basic biology, right?

13 A. Right. There's in some instances you also
14 have -- there's three alleles, so it then gets more
15 exponential than that.

16 Q. Well, right. In a three-allele site, you
17 would have to account for more than one contributor?

18 A. No. I'm saying there's three allele
19 possibilities.

20 Q. Oh, because of the masking?

21 A. Right.

22 Q. And just because of the case, I guess we'll
23 just go ahead list it out, okay?

24 A. I'm not sure what your question is.

25 Q. Sure.

1 A. Is there a question?

2 Q. Going to the next site, the HBGG site.

3 A. Right.

4 Q. Somebody who is AA homozygous A could have
5 contributed to the evidentiary sample?

6 A. Correct.

7 Q. Somebody who is homozygous C could have
8 contributed to the evidentiary sample?

9 A. Correct.

10 Q. Somebody who is AC could have contributed
11 to the evidentiary sample?

12 A. Correct.

13 Q. The next site, the D7S8.

14 A. Correct.

15 Q. Somebody who is AB could have contributed
16 to the sample?

17 A. No. Only A.

18 Q. Okay.

19 A. Which sample are you referring to?

20 Q. The 86.

21 A. 86. Okay. So we have A and then we have
22 B, a faint B. Intensities also play a role in this
23 type of testing.

24 Q. Okay.

25 A. If you have mixtures of DNA -- so if you

1 had a homozygous sample, you would have one dark
2 intense band. If you have heterozygote of the same
3 quantity, they're going to be equal intensities.

4 When you have a homozygote and another
5 band, the other band lighting up of different
6 intensities, that is an indicator that it's two
7 different contributors. Because you have one of
8 lesser quantity than the other being amplified. It's
9 back to that 10/90 principal we discussed before.

10 Q. The ratios?

11 A. Right. The ratio of DNAs in proportion.
12 So we indicate by parentheses that the B in this
13 instance is of a lesser quantity DNA than the A by
14 varying of intensity.

15 Q. Okay.

16 A. And the same with the GC allele.

17 Q. Dr. Crane, I don't mean to interrupt you.
18 I want you to fully explain it. But sticking with
19 the D7S8 site, what genotypes that exist in the
20 population could have contributed to that evidentiary
21 sample? Which genotypes in combination with each
22 other could give us these results?

23 A. So you would have A as homozygote and a B
24 as homozygote.

25 Q. Could somebody who is AB have contributed

1 to those results?

2 A. Very unlikely because they would be of
3 equal intensity.

4 Q. Okay. All right. So -- and I guess the
5 results from Mr. Simmons aren't reflected on there,
6 but I'm trying to think what page to go through.

7 A. I have it here.

8 Q. Okay.

9 A. It's on page 48.

10 Q. So Mr. Simmons is an AB?

11 A. Right. Okay. So A could be -- would be
12 met and mixtured with the other A, the homozygote A.

13 Q. So the stuff you said about an AB person
14 being an unlikely contributor?

15 A. Sorry, I misspoke. You're right. That's
16 true. That's a possibility.

17 Q. I'm just asking -- I just want you to
18 clarify what you were saying.

19 A. So you could have A, homozygote. You could
20 have an AB because that would be part of the dark
21 allele homozygote.

22 Q. Okay.

23 A. The B, a lesser intensity. So you could
24 have an AB person, or you could have a B person
25 that's homozygote. Those would be your options.

1 Q. So there are three genotypes that could
2 have contributed to --

3 A. Right.

4 Q. -- that evidentiary sample?

5 A. Correct.

6 Q. And you do include AB as a possibility?

7 A. Yes.

8 Q. I'm sorry, Dr. Crane, on the next line, the
9 GC line --

10 A. Yes.

11 Q. -- what possible genotypes could have
12 contributed to that evidentiary sample?

13 A. You could have B, homozygote. That's one
14 intensity. You could have a BC person, again,
15 because the B could be in combination with the C of
16 lesser intensity. And AC obviously. And not C on
17 its own because you have the A and the C of the same
18 intensity.

19 Q. So the possible contributors would be B, A,
20 or AC?

21 A. B, BC, AC.

22 Q. Okay. And then for the last one, that's
23 the DQ alpha site, right?

24 A. Yeah. That's a lot more complex.

25 Q. Because it has multiple hits that mask

1 other possible hits?

2 A. Right. So you have four loci and then
3 subtypes of those loci, so a lot of possibilities
4 exist for that.

5 Q. Okay. But a person who is homozygous 1.1,
6 that could be a contributor?

7 A. It could be.

8 Q. A person --

9 A. It's a possibility.

10 Q. Right. And that's why I'm just going to
11 ask you about some possibilities.

12 A. Okay.

13 Q. A person who is 1.1, 1.2 could be a
14 contributor?

15 A. Right.

16 Q. A person who is 1.1, 2 could be a
17 contributor?

18 A. Yes.

19 Q. A person who is 1.1, 4.2, or 4.3, since you
20 couldn't distinguish --

21 A. Right.

22 Q. -- that could be a contributor?

23 A. Correct.

24 Q. All right. And the way that you would find
25 out how many genotypes are possible contributors to

1 an evidentiary sample would be to multiply the
2 different genotype possibilities at each site times
3 the number of possibilities at the next site?

4 A. I suppose. Again, that's not my expertise.
5 I'm not qualified to talk about genetic statistics.

6 Q. Right. And this isn't genetic statistics,
7 this is just pundit square biology. How many
8 genotypes could -- you know, if my blood type is AB,
9 what are my possible parents?

10 A. I think it's a little more complicated than
11 that, so I'll just leave it at that.

12 Q. Okay. Dr. Crane, these numbers that you
13 assign to the loci, you know, calling a loci a 10
14 versus calling it an 11, how does that work?

15 A. That's a manufacturer's nomenclature. It's
16 a nomenclature that's determined by, I think, the
17 manufacturer.

18 Q. Okay. I'm going to go back to a closeup of
19 the January 29th, 1998, CTT results.

20 A. Okay.

21 Q. I don't know if you can see, starting at
22 the bottom, I'm starting right above my finger.

23 A. Right.

24 Q. Can you see those values that I have
25 written in there?

- 1 A. Yeah, 7 through 15. Uh-huh.
- 2 Q. Are those correct?
- 3 A. I believe so.
- 4 Q. And again on the TPOX site?
- 5 A. It's too close. It's blurred.
- 6 Q. How about there?
- 7 A. Back up a little bit more. It's hard to --
- 8 there you go. It's focused now. Okay. 9. Yes.
- 9 Okay.
- 10 Q. Do those appear to be correct?
- 11 A. It's hard to tell by the orientation, but
- 12 I'll have to assume so.
- 13 Q. I'll back up.
- 14 A. Okay. Okay. Yeah, I guess so. Yeah.
- 15 Q. All right. If those numbers are correct,
- 16 she would be -- Ms. Boyd would be a 9?
- 17 A. A 9. Okay. I was looking at it upside
- 18 down before, sorry.
- 19 Q. I mean, it's my bad.
- 20 A. You're okay. That's correct.
- 21 Q. So it's a 9 that basically shows up across
- 22 all the lanes -- well, her sample and the evidentiary
- 23 sample?
- 24 A. Yes. It's 9.
- 25 Q. So she would be a -- the sample for the

1 lane labeled 86?

2 A. Yes, would be 9.

3 Q. Would be a --

4 A. You're correct.

5 Q. -- 9, 10, 11?

6 A. Correct.

7 Q. And the 10 and the 11 would be -- would or
8 would not be in the stutter position for a 9?

9 A. 9 is the stutter.

10 Q. Okay. 9 would be the stutter position?

11 A. Stutter is the low and lighter.

12 Q. Okay. And the 12 would be above?

13 A. Correct.

14 Q. And for this TPOX lane?

15 A. Correct.

16 Q. Okay. And earlier, talking about
17 Dr. Baird's interpretation of the results in the
18 chart that he prepared --

19 A. Uh-huh.

20 Q. -- basically she would have to be a 9 and
21 not a 12?

22 A. A 9. Yes, that's correct.

23 MR. YOUNG: Dr. Crane, that's all the
24 questions I have at this time. Thank you for your
25 patience, especially in trying to look at this lane

1 and numbers and gels and graphs.

2 THE WITNESS: 10 years -- 12 years later
3 it's kind of tough. I've been out of this work for a
4 very long time.

5 REEXAMINATION

6 BY MR. ZELENKA:

7 Q. Dr. Crane, let me just ask you a couple of
8 follow-up questions. Subsequent to the February 2nd
9 report that Lifecodes did, some further testing was
10 done, which is reflected in a series of pages in the
11 notebook, Bates-stamped 116, 117, and 241, dates
12 February 9th, 1998, and February 10th, 1998.

13 A. Okay. I have the pages.

14 Q. Okay. What was the particular tests that
15 were done at that time and what was the purpose of
16 the tests?

17 A. That test is called amelogenin, and it
18 basically determines whether DNA is human or not
19 and/or if there's a possibility of any male DNA, I
20 believe.

21 Q. Okay.

22 A. It's been a while.

23 Q. Okay. The results of those tests weren't
24 reported either; is that correct?

25 A. Correct.

1 Q. And why was that not done?

2 A. It's more of a control test. It doesn't
3 give you any allele-specific types or anything from
4 that perspective.

5 Q. Okay. And that was both reflected in the
6 Bates-stamps 116 and 117; is that correct?

7 A. Correct.

8 Q. Okay. Did that provide you any information
9 with respect to the data involving Kenneth Simmons or
10 the victim?

11 A. No.

12 MR. ZELENKA: Okay. That it's. I have no
13 further questions.

14 MR. YOUNG: I have nothing in follow up.

15 (APPLICANT EXH. 1, Copies of Gels, was
16 marked for identification.)

17 (The deposition concluded at 3:27 p.m.)

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SIGNATURE OF DEPONENT

I, the undersigned, LAUREN M. CRANE, do
hereby certify that I have read the foregoing
deposition and find it to be a true and accurate
transcription of my testimony, with the following
corrections, if any:

PAGE	LINE	CHANGE	REASON

LAUREN M. CRANE

DATE

1 CERTIFICATE OF REPORTER

2 I, Sheri L. Byers, Registered
3 Professional Reporter and Notary Public for the
4 State of South Carolina at Large, do hereby
certify:

5 That the foregoing deposition was
6 taken before me on the date and at the time and
7 location stated on page 1 of this transcript; that
8 the deponent was duly sworn to testify to the
9 truth, the whole truth and nothing but the truth;
10 that the testimony of the deponent and all
11 objections made at the time of the examination were
12 recorded stenographically by me and were thereafter
13 transcribed; that the foregoing deposition as typed
14 is a true, accurate and complete record of the
15 testimony of the deponent and of all objections
16 made at the time of the examination to the best of
17 my ability.

18 I further certify that I am neither
19 related to nor counsel for any party to the cause
20 pending or interested in the events thereof.

21 Witness my hand, I have hereunto
22 affixed my official seal this 1st day of December,
23 2010, at Columbia, Richland County, South Carolina.



24 Sheri L. Byers
25 Sheri L. Byers,
Registered Professional Reporter,
Notary Public
State of South Carolina at Large
My Commission expires:
January 5, 2014

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I N D E X

Page

Stipulation

3

EXAMINATION

BY MR. ZELENKA
BY MR. YOUNG

3
15

REEXAMINATION

BY MR. ZELENKA

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Signature of Deponent

63

Certificate of Reporter

64

E X H I B I T S

Respondent's

1 Resume of Lauren M. Crane

7

Applicant's

1 Copies of Gels

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Lauren M. CraneTelephone: [REDACTED]
Fax: [REDACTED][REDACTED]
Yorktown Heights, NY 10598

Cellular: [REDACTED]

Pharmaceutical Quality Expert

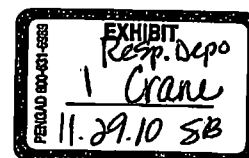
A self-motivated leader/team player seeks continual career development in progressive pharmaceutical company where my compliance, quality assurance, pharmaceutical manufacturing, experience and overall knowledge of drug safety and toxicology can be effectively utilized to contribute to the company vision.

- Experienced at GMP, GCP, GLP and writing standard operating procedures
- Verse in FDA, EMA, ICH guidelines and regulations
- Achieved ISO 9001:2000, ISO 13485 and ASCLD certifications
- Designed compliance program and proficient in trend analyses.
- Experienced auditor
- Experienced in legal preparation and presentations
- Inventory distribution control
- Contract negotiations/Management of CRO's

Proficient in Excel, Word, Outlook, Access, Power Point, and ARISg

Professional Experience**Boehringer Ingelheim Pharmaceuticals, Inc.****2006-Present****Drug Surveillance and Information Compliance Manager**

- Manage compliance information for pharmacovigilance operations and CRO activities to ensure that IND and NDA adverse event information is collected, documented and reported according to Corporate and FDA and EMA regulations.
- Developed a CAPA system to ensure quality execution of processes within pharmacovigilance and with CRO's.
- Assure that Pharmacovigilance, Clinical Research, Drug Regulatory Affairs, License Partners and Data Management personnel adhere to policies and procedures.
- Institute and implement corrective action with senior management to ensure continual departmental improvement.
- Participate in global Drug Surveillance Executive Committee to develop new processes for department improvement and international interactions.
- Trend compliance findings quarterly and institute process changes to improve quality.
- Review SOP's, WI and Job aids and develop tools for training.
- Responsible for presenting and preparing data during FDA and EMA inspections for both Clinical Sponsor and Safety audits.
- Responsible for conducting off site global OPU and CRO audits.
- Responsible for managing all CRO activities.



Lauren M. Crane

Page 2

American Diagnostica, Inc.
Production Manager

2005-2006

- Manage a manufacturing team in the production of over 300 pharmaceutical products for distribution to clinical labs and pharmaceutical companies performing sample tests and clinical trials for cardiovascular disease, hemostasis, oncology, and drug discovery.
- Train personnel in ISO procedures, cGMP and FDA regulations. Write standard operating procedures, manufacturing procedures and quality control procedures for compliance with FDA and ISO9001:2000 and ISO13485
- Analyze clinical trial data and for 510K submissions.

Tepnel Lifecodes Corporation
International Quality Assessment Manager

1998-2005

- Manage a team for the manufacturing and distribution of the International Quality Assessment Scheme (IQAS) Clinical Proficiency Test Kits, including: development and maintenance of all Standard Operational Procedures (SOP's), Manufacturing Procedures (MP's), Quality Control Procedures (QCP's) and Batch Records to assure that all procedures adhere to ASCLD, ISO 9001:2000 and ISO 13485 regulations.
- Track and maintain engineering changes, standard operating procedures, test methods, specifications, and master batch records. Develop and maintain CAPA's and resolve quality issues. Design and execute validation studies for new products and materials.
- Manage the administrative functions of the IQAS Proficiency Program comprised of seventy national and international forensic laboratories, including performing audits, preparation of quarterly reports, cost analysis, management of external laboratory quality control contracts.
- Report scientific data using a Microsoft Access program by compiling and analyzing results. Emphasize discrepant or adverse events for review and corrective action by ASCLD.
- Manage the manufacturing of Effipure, oligo polyacrylimide gel production and delivery for the clinical study distribution of colon cancer screening test. Maintain and update documentation for compliance with FDA, ISO 9001:2000 and ISO 13485 standards.
- Report discrepancies, engineering changes and related customer issues that result in revalidation or replacement of products in the field using quality system software.
- Certified and trained as an internal auditor for all departments. Responsible for conducting internal audits twice a year.
- Project Manager of "College of American Pathologists" and "Quality Forensic" proficiency contracts, including: the manufacturing of biological materials, cost analysis, development and maintenance of SOP's, QCP, and MP's.
- Aid in the quality assurance of the HLA and DNA product lines according to ISO 9001:2000, ISO 13485, IVDD and FDA regulations.

Lauren M. Crane

Page 3

Lifecodes Corporation

1988-1998

Sr. Forensic Scientist

- Management of staff and ensure maintenance of daily workflow including: tracking receipt of samples, assigning casework to scientists, ensuring expedition of reports.
- Management of standard operation procedures, protocols and laboratory policies.
- Analyze forensic and paternity biological evidence for DNA -print testing.
- Performed and interpreted both RFLP and PCR tests.
- Prepare discovery materials legal documents for trial proceedings.
- Testified in over 70 times in criminal and civil cases nationwide.

Lifecodes Corporation

1988-1988

Paternity Technician

- Processed blood, amniotic, and tissue samples for DNA print kindred comparisons.
- From 1988-1998 processed over 2000 paternity cases.

Lifecodes Corporation

1987-1988

Cancer Technician

- Processed blood, and tissue samples for DNA detection of cancer anomalies

Ciba-Geigy

1985-1987

Laboratory Assistant

- Prepare experimental formulation for the development of Polymer resins
- Maintain and track experiments of formulated polymer resins in the form of pressed plaques, threads, extruded beads and tensile bars.
- Prepare experiments for development of oil surfactants.

Education

M.S., Forensic Science, 1995

John Jay Criminal Justice College, New York

B.S. Biology, 1987

Iona College, New York

Affiliations

Consultant for the University of Florida

- Provide standard operating procedures and training for the manufacture of biological sample for distribution to forensic laboratories for proficiency testing.

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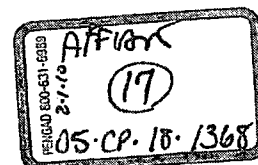
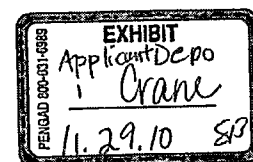
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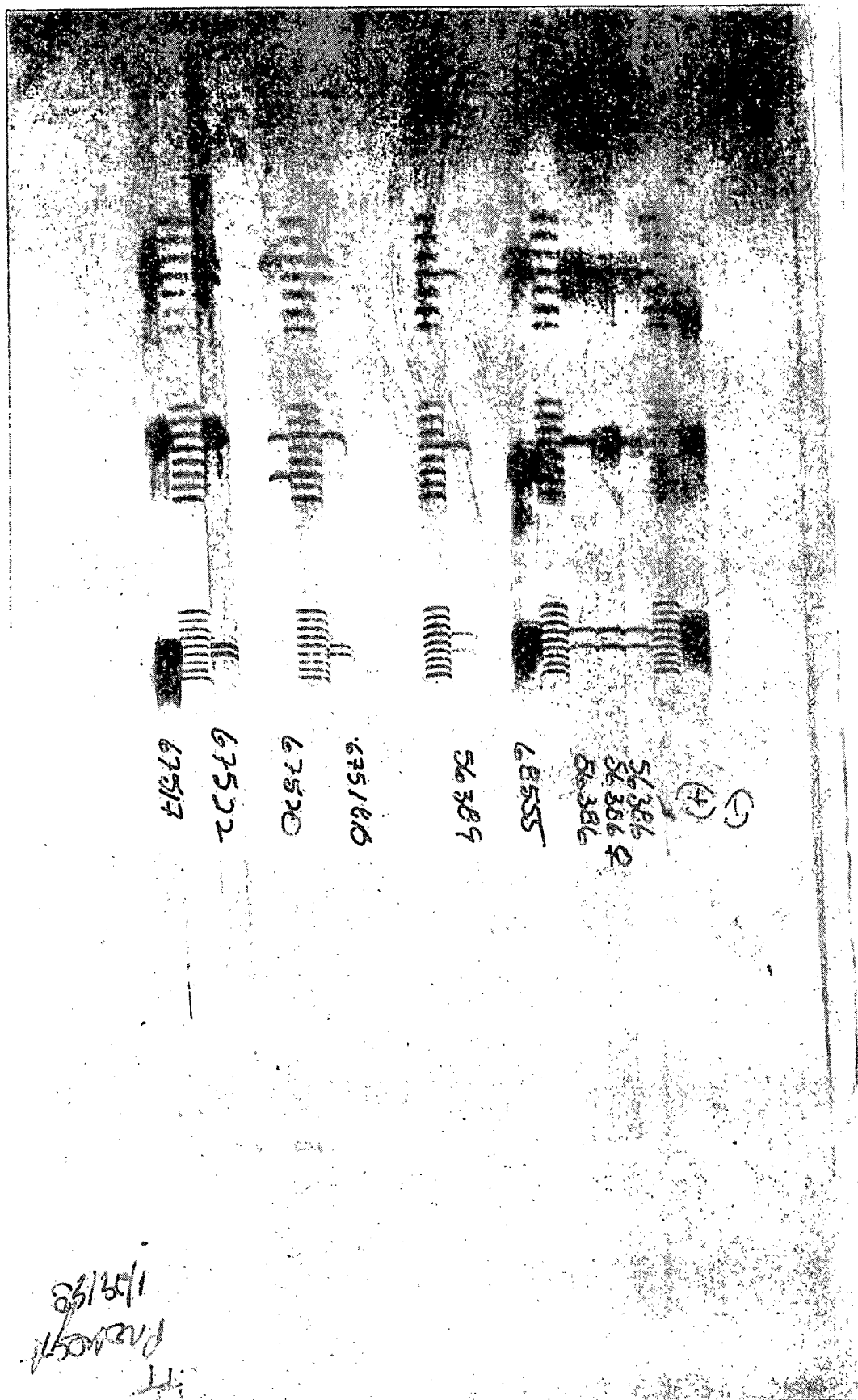
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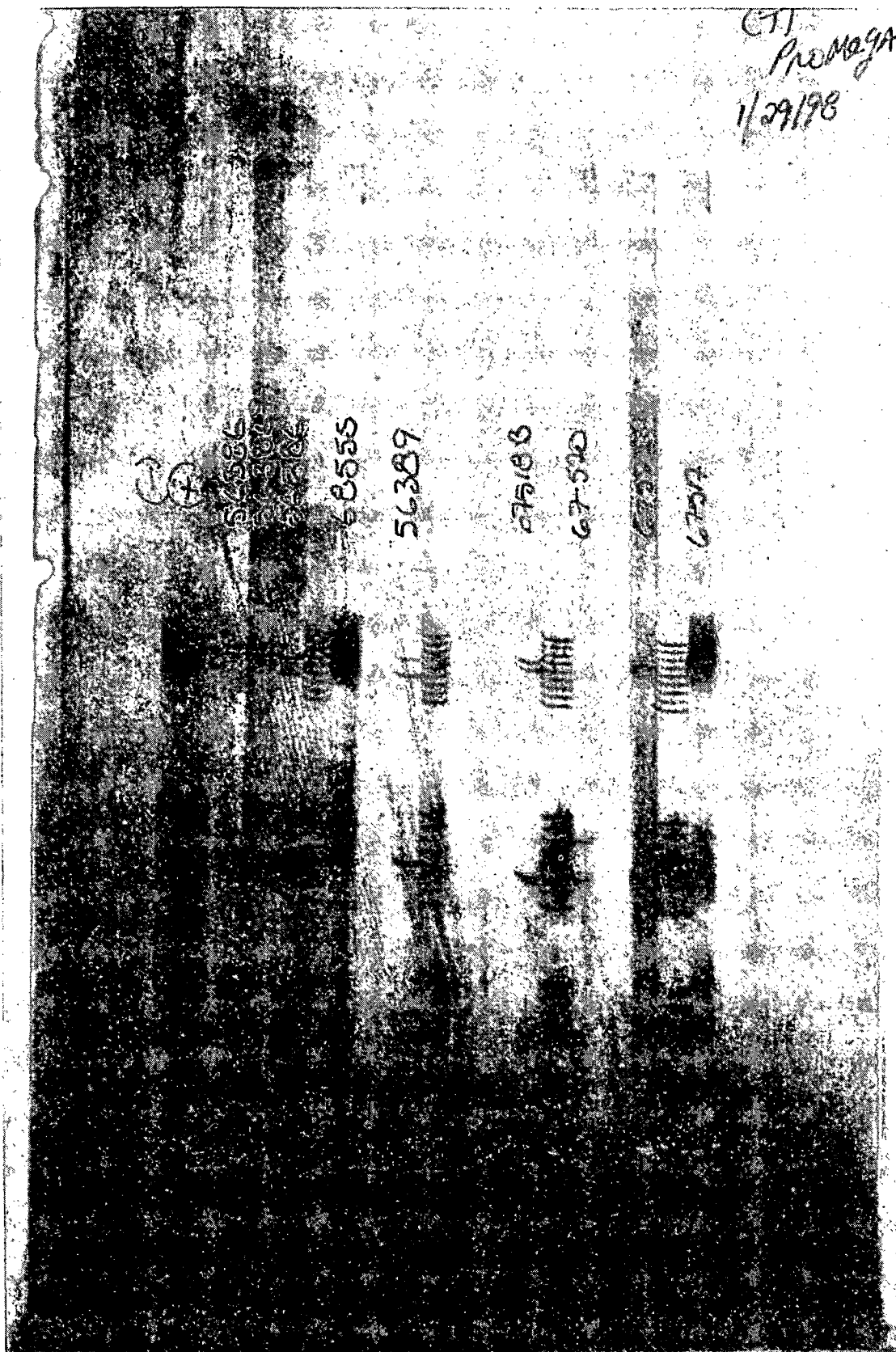
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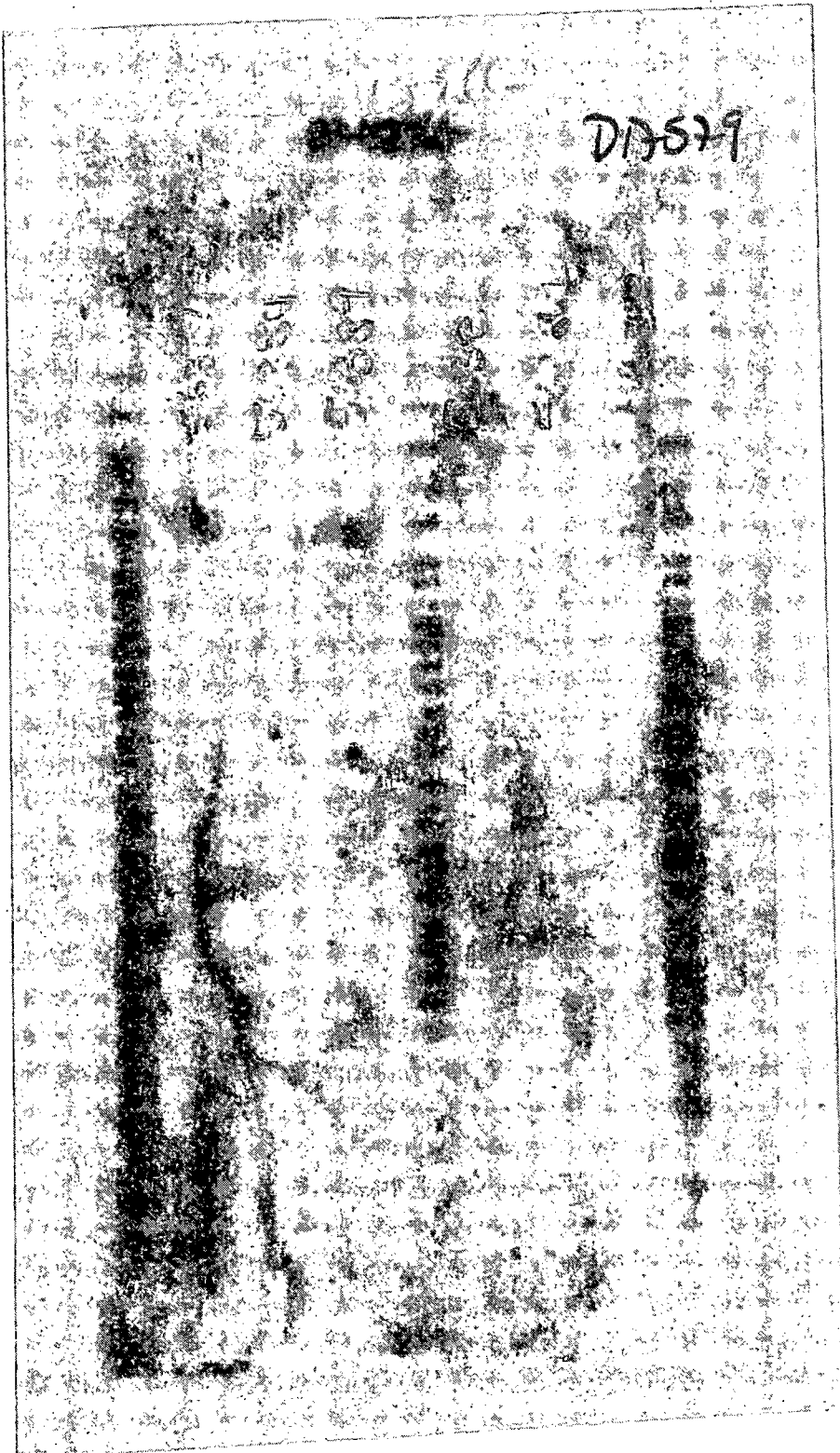
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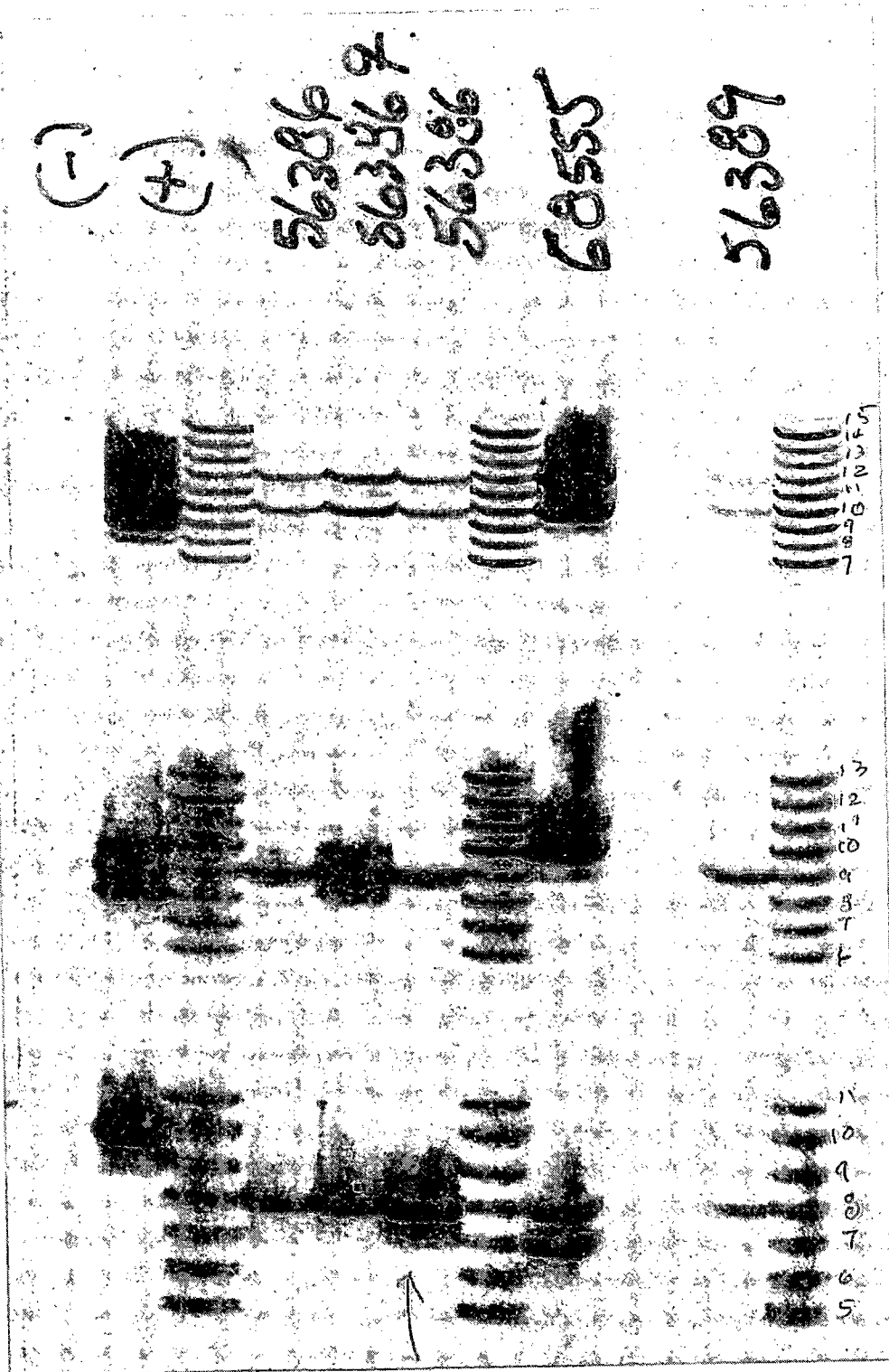
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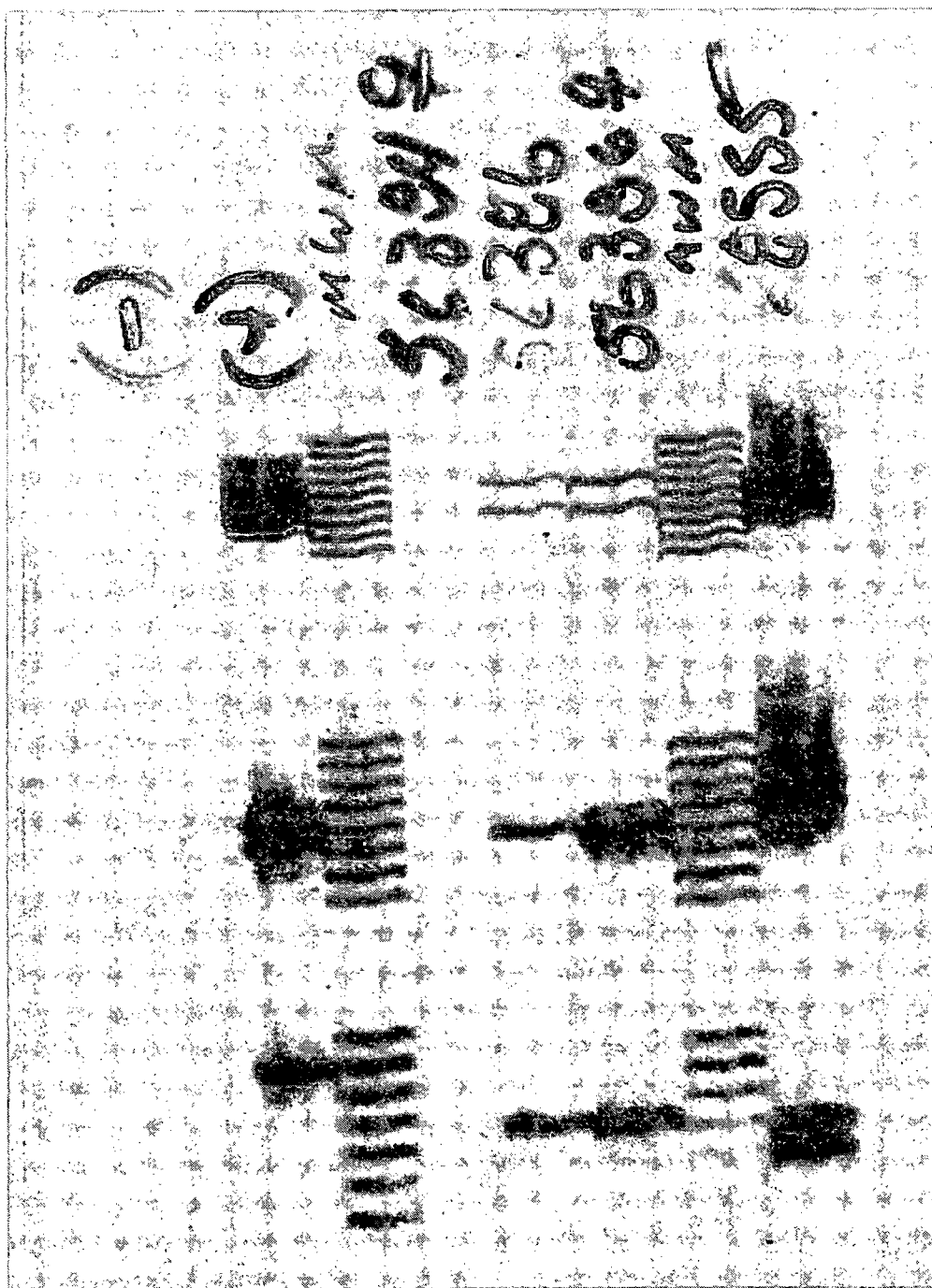


Close up of 17-4

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close up of 17-8



STATE OF SOUTH CAROLINA)
COUNTY OF DORCHESTER)

IN THE COURT OF COMMON PLEAS

KENNETH SIMMONS,)
PLAINTIFF,)

VS)

CASE NO. 03-CP-18-1192

STATE OF SOUTH CAROLINA,)
DEFENDANT.)

TELEPHONIC DEPOSITION OF DR. RICHARD LEO

ROCK HILL, SOUTH CAROLINA

JULY 12, 2010

 COPY

REPORTER: KELLY REITER

DALLAS REPORTING
SERVING THE CAROLINAS FOR OVER TWENTY-FIVE YEARS
ROCK HILL, SOUTH CAROLINA
803-328-9640/TOLL FREE 1-877-871-6363

Appearances:**For the Plaintiff -**

James M. Morton, Esquire
Morton and Gettys
334 Oakland Avenue
Post Office Box 707 (29731)
Rock Hill, South Carolina 29730

**For the Defendant -
(Via Telephone)**

Donald Zelenka, Esquire
William Edgar Salter, Esquire
SC Attorney General's Office
Post Office Box 11549
Columbia, South Carolina 29211

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1 Telephonic deposition of Dr. Richard Leo, taken
2 before me, Kelly Reiter, a Notary Public for the State
3 of South Carolina, at the law office of Morton and
4 Gettys, 334 Oakland Avenue, Rock Hill, South Carolina,
5 commencing at 2:10 p.m. on July 12, 2010, in accordance
6 with the South Carolina Rules of Civil Procedure.

7 It was stipulated by and between Counsel for the
8 Plaintiff and Counsel for the Defendant that this
9 deposition is taken for any purpose allowed under the
10 South Carolina Rules of Civil Procedure;

11 That the signing of the transcript of deposition by
12 the witness is waived.

13 * * * * *

14 Mr. Morton - This is Jim Morton.

15 Court Reporter - I'm Kelly Reiter. I'm the
16 court reporter.

17 Mr. Morton - Kelly Reiter, R-e-i-t-e-r, and
18 Don, I can send you her information later.

19 Mr. Zelenka - Okay.

20 Mr. Morton - And I am here with Kelly, the
21 court reporter, and my paralegal, Rixie. We
22 are on the record now, correct?

23 Court Reporter - (Indicating yes)

24 Mr. Morton - Also, joining us from California
25 is Dr. Richard Leo, who is a false confession

1 expert, and with deputy attorney general, Mr.
2 Don Zelenka, Z-e-l-e-n-k-a, who is in
3 Columbia. All of the parties have agreed to
4 take this deposition via telephone deposition.
5 With that introduction, we will proceed. Mr.
6 Zelenka - - -

7 Court Reporter - Do you want me to swear him
8 in now?

9 Mr. Morton - Yes, go ahead and swear the
10 witness in. I'm sorry.

11 Dr. Richard Leo, first being duly sworn, deposes and
12 says as follows:

13 Mr. Morton - Mr. Zelenka, you have - - - As I
14 understand it, Dr. Leo's affidavit has been
15 introduced in court over your objection,
16 correct?

17 Mr. Zelenka - It's my understanding it's been
18 proffered with my objection, and that the
19 judge is going to rule on its admissibility
20 and the testimony after he receives the
21 deposition.

22 Mr. Morton - Okay.

23 Mr. Zelenka - That was my understanding, and
24 let me make another point for the record.

25 William Edgar Salter, S-a-l-t-e-r, a senior

1 assistant attorney general, is also present in
2 my office.

3 Mr. Morton - Okay. The affidavit that you are
4 referring to, Mr. Zelenka, is Dr. Leo's
5 affidavit dated - - - It's January the 15th?

6 Mr. Zelenka - That is the one that I have.

7 Mr. Morton - Okay. So as I understand it, the
8 affidavit has been proffered. We're going to
9 take Dr. Leo's deposition today, and the judge
10 will later rule as to the admissibility of
11 this affidavit, correct?

12 Mr. Zelenka - Correct.

13 Mr. Morton - Okay. Dr. Leo and Don, both of
14 us have this - - - well, I think everybody has
15 the affidavit that's been proffered. I do not
16 see any point in me going through this
17 affidavit point-by-point. I am going to turn
18 it over to you. If I need to ask some
19 questions, I assume that I will be allowed to
20 do that afterwards, and you can follow me as
21 well. Does that sound fair?

22 Mr. Zelenka - Sounds fair.

23 Mr. Morton - Okay.

24 Mr. Zelenka - Let me make a couple of
25 statements for the record.

1 Mr. Morton - Okay.

2 E X A M I N A T I O N - (By Mr. Zelenka via telephone)

3 Q Dr. Leo, since this is a deposition, under the
4 South Carolina Rules of Civil Procedure, I'm
5 required to advise you and instruct you as the
6 witness to ask deposing counsel, which would be me,
7 rather than the witness' own counsel for
8 clarifications, definitions, or explanations of any
9 words, questions, or documents presented during the
10 course of the deposition. That's pursuant to the
11 South Carolina Rules of Civil Procedure, Rule 30.
12 Also, I believe even under these circumstances, you
13 have the right to sign your deposition or waive
14 signing of the deposition. I don't know if Mr.
15 Morton has gone over that with you. But it's my
16 understanding that you have the right to waive
17 signing of the deposition, which would then make it
18 a part of the record, or you can review the
19 particular words and terms that you use and make
20 corrections as to those words and terms before it
21 becomes officially a court document.

22 Mr. Zelenka - Am I correct on that, Mr.
23 Morton?

24 Mr. Morton - That's correct, Mr. Zelenka, and
25 my advice, Dr. Leo, would be to waive reading

1 and signing.

2 A Okay.

3 Mr. Morton - So as I understand it, Dr. Leo is
4 going to waive reading and signing of the
5 deposition.

6 Mr. Zelenka - Okay. At the outset of the
7 deposition, just for clarification, we object
8 to both the introduction of the affidavit and
9 the testimony of Dr. Richard Leo. This
10 objection is done pursuant to the South
11 Carolina Rules of Evidence, Rule 702, and
12 South Carolina Rule of Evidence 403, and South
13 Carolina Rule of Evidence 104(a) with respect
14 to preliminary questions concerning the
15 witness. As counsel is aware in *Bourjaily*
16 versus the United States, 483 U.S. 171, it
17 requires the admission of evidence, expert
18 evidence, to be established by a preponderance
19 of the evidence. This objection under Rule
20 702 is done in reliance on the recent South
21 Carolina Supreme Court decision in *State*
22 versus Jeffrey Louis Jones. The cite for that
23 case is 383 S.C. 535, 681 S.E.2d 580 (2009)
24 opinion of the South Carolina Supreme Court,
25 which acknowledges that Rule 702 provides for

1 the admission of expert testimony if
2 scientific, technical, or other specialized
3 knowledge will assist the trier of fact to
4 understand the evidence or to determine a fact
5 at issue. A witness qualified as an expert by
6 knowledge, skill, experience, training, or
7 education may testify thereto in the form of
8 the opinion or otherwise. Within the Jones
9 decision, it stated that, in considering the
10 admissibility of scientific evidence under the
11 Jones standard, the Court looks to several
12 factors including the publications and peer
13 review of the technique, the prior application
14 of the method or type of evidence involved in
15 the case, the quality control procedures used
16 to establish reliability, and the consistency
17 of the method and recognized scientific laws
18 and procedures, analyzing that with the
19 decisions in Daubert and Kumho and the earlier
20 Council v State and State versus Jones case.
21 In addition, we would assert that this case
22 law requires the total exclusion of this type
23 of evidence because it's within the province
24 of the jury. This has been a position that
25 has been taken by a series of state courts,

1 and the South Carolina Supreme Court has not
2 yet addressed the admissibility of expert
3 testimony concerning false confessions. We
4 particularly rely upon the case of the United
5 States versus Adams, 271 F.3d 1236, 1246, a
6 Tenth Circuit case (2001), which held that
7 heard testimony regarding credibility should
8 be excluded because it is prejudicial and
9 unduly influences the jury. Bachman versus
10 Leapley, L-e-a-p-l-e-y, 953 F.2d 440, 441, an
11 Eighth Circuit case in 1982 (sic). It is the
12 exclusive province of the jury to determine
13 the believability of a witness. An expert is
14 not permitted to offer an opinion as to the
15 believability or truthfulness of a victim's
16 story. Vent versus State, V-e-n-t, 67 P.3d
17 661, 670, Alaska Court of Appeals (2003),
18 holding that expert testimony on the subject
19 of false confessions can be unreliable, and
20 therefore inadmissible. State versus Cobb, 43
21 P.3d 851, 869, Kansas Board of Appeals (2002),
22 finding that expert testimony of false
23 confessions invades the province of the jury.
24 State v Davis, 32 S.W.2d 603, 609, Missouri
25 Court of Appeals (2000), holding that common

1 knowledge of a jury regarding false
2 confessions was reasonable and unaided by
3 expert opinions. People v Philips, 692 N.Y.S.
4 2d 915, 939-940, New York Superior Court
5 (1999), finding that a voluntariness of a
6 witness was not accepted by the scientific
7 community and too novel to be admissible.
8 Alternatively, we would assert that if false
9 confession expert testimony is allowed to be
10 introduced, it would be limited to a general
11 description of the phenomenon of false
12 confessions. For that, we rely upon a Fourth
13 Circuit opinion. The Fourth Circuit opinion
14 is United States versus Belyea, B-e-l-y-e-a,
15 159 F.App'x 525, 530, (4th Cir. 2005), holding
16 that expert testimony that false confessions
17 exist and explaining what techniques can
18 induce them would be helpful clarification.
19 United States versus Hall, 93 F.3d 1337, 1344-
20 45, (7th Cir. 1996), close paren, permitting
21 Dr. Ofshe to testify about false confessions
22 and their relevance to provide the jury with
23 relevant information. Alternatively, we would
24 assert that false confession testimony, if it
25 is otherwise admissible, would only be allowed

1 to be admitted through an expert witness that
2 discusses the particular defendant's mental
3 condition by a witness with sufficient
4 qualifications to render that opinion. We
5 rely on that case, United States versus Shay,
6 S-h-a-y, 57 F.3d 126, 131 (1st Cir. 1995), and
7 United States - - - Excuse me, State versus
8 Cauley (phonetic spelling), underlined, 202
9 West Law 392191, Ohio Court of Appeals, March
10 4th, 2002. Additionally, we would assert that
11 the particular testimony here has not been - -
12 - met those terms. Because specifically, the
13 petitioner has failed to show that it
14 satisfies any of these tests, that it has made
15 an establishing of the fact as to whether
16 there is sufficient empirical data to support
17 rendering the scientific opinions, the
18 existence of a high potential rate of error,
19 the rarity of false confessions which
20 precludes empirical testing and a known rate
21 of error, and as stated before, the fact that
22 the particular evidence invades the province
23 of the jury. Pursuant to Rule 104(a), once a
24 party has offered expert testimony, that
25 testimony must be based upon scientific

1 knowledge and whether it will assist the
2 juror, and we submit that that has not been
3 accomplished in this case by the petitioner or
4 within this affidavit. So we would move to
5 strike both the testimony as it relates to
6 false confession and the particular affidavit
7 in this particular situation.

8 Mr. Morton - Okay. Objection noted.

9 Mr. Zelenka - Okay. In addition, with respect
10 to the affidavit, we would move to strike some
11 specific paragraphs within the affidavit. At
12 the outset, we would move to strike Paragraph
13 22 of the affidavit, which is set forth on
14 Page 11 through 12. That refers to statements
15 made by the petitioner allegedly to this
16 particular witness in 2009. We would move
17 that that be stricken for hearsay. The
18 petitioner has not testified in this
19 proceeding, nor is any of that information set
20 forth in the affidavit been made admissible.
21 Under Rule 705, he cannot rely or present
22 evidence - - - Excuse me, he cannot present
23 evidence which is otherwise inadmissible.
24 Similarly, we would move to strike from the
25 affidavit on Page 13, Paragraph 25. Paragraph

1 25 refers again to material that has not been
2 introduced in this record, and it is not
3 thereby admissible. Referring to an unsworn
4 statement made by Dr. William Thompson that
5 he's relying upon, we would strike that
6 similarly as hearsay and under Rule 705 and
7 Rule 703, that it's not appropriate for the
8 introduction of those materials. So other
9 than those specific objections, I believe
10 we're ready to go forward with the
11 questioning.

12 Mr. Morton - Very well.

13 FURTHER EXAMINATION - (By Mr. Zelenka)

14 Q Dr. Leo, are you a psychologist?

15 A Yes, I am a psychologist. I was a professor of
16 psychology, and I am a trained social psychologist.
17 I'm not a clinical or licensed psychologist, but I
18 am a psychologist.

19 Q You're not a licensed psychologist anywhere?

20 A Correct. Social psychologists don't get licenses.

21 Q Okay. And are you qualified to give psychological
22 testing?

23 A No. Clinical psychologists do psychological
24 testing. Social psychologists do not.

25 Q And certainly, you're not a psychiatrist?

- 1 A Correct.
- 2 Q With respect to your background, have you ever
3 testified in South Carolina?
- 4 A I have by video deposition.
- 5 Q Okay. And - - -
- 6 A Video link-up.
- 7 Q And what case did that occur in?
- 8 A I think the defendant's name was Kandy Gilliard,
9 but I would have to check my records. I think that
10 was about a decade ago.
- 11 Q And did you testify for the defense or for the
12 state?
- 13 A No, it was for the defense.
- 14 Q And who was the lawyer that was involved in that
15 case?
- 16 A I would have to check my records. I don't recall
17 her name off the top of my head.
- 18 Q Okay. Was that expert Jerry Theos?
- 19 A You asked if the expert was Jerry Theos?
- 20 Q Excuse me. Was the attorney Jerry Theos?
- 21 A Not to my - - - My recollection is, the attorney
22 was a woman, not a man.
- 23 Q Okay. So it wasn't Thomas Simms, either?
- 24 A I don't believe so, because it was a woman, not a
25 man.

1 Q Have you consulted in any other cases in South
2 Carolina, other than those that you've testified
3 in?

4 A I think that's the only case that I've testified
5 in, and I do believe I have consulted in other
6 cases in South Carolina, at least one other case.
7 But I could check my records, and let you know how
8 many other cases.

9 Q And when was that?

10 A The other case, I believe it was in 1999, but I
11 could check my records. I'm just going by memory
12 here.

13 Q How long would it take you to check your records?

14 A It should just take a moment. Hold on.

15 Q Okay.

16 A Okay. I have testified - - - I'm sorry. I have
17 consulted on six cases in the state of South
18 Carolina. The case that I testified in, the
19 defendant's name was Kandy Gilliard, and that was
20 in 2001. I don't recall the - - - I don't recall
21 the attorney's name, and I don't know that I have
22 records from that case since it was almost a decade
23 ago. So not including this case, there are five
24 other cases that I have consulted on, but only in
25 Kandy Gilliard's case have I offered testimony.

1 Q okay.

2 A My understanding was, that testimony was accepted
3 into evidence and presented before a jury at trial.

4 Q With respect to the other cases, what years were
5 you consulted?

6 A 1999, 2001, 2005, and 2008.

7 Q And any of that consultation with Jerry Theos or
8 Thomas Simms?

9 A I don't recall those names, Jerry Theos or Thomas
10 Simms. So unless I - - - Unless my memory is
11 failing me, no.

12 Q So as I understand it, you've only testified once
13 in South Carolina?

14 A Correct.

15 Q Subsequent to 1998, you have consulted in five
16 other cases. Those cases occurring in 2001, 2005,
17 2008 - - - or excuse me, four other cases, and
18 1999. Is that correct?

19 A Not entirely. There were two cases that I
20 consulted in in 2001. So one case in 1999, two in
21 2001, one in 2005, one in 2008, and then this case
22 in 2009.

23 Q Subject to my objections, in your affidavit, you
24 stated the materials you reviewed. One of those
25 materials was a trial transcript summary. Is that

1 correct? That's on Page 2 of your affidavit.

2 A Well, if it states that in the affidavit, I believe
3 it is correct. Let me just turn to Page 2. Yes,
4 correct, the first item noted.

5 Q Who prepared that summary?

6 A I believe Emily Paavola, but I'm not a hundred
7 percent sure. That's who I believe it would have
8 been.

9 Q How long is that summary?

10 A I don't know. I'd have to find it. It could take
11 me a moment to find the summary, so - - - (No
12 further response)

13 Q That's okay. Please do.

14 A Okay. So I'm going to put the phone down, just so
15 I can flip through my notes with both hands. Okay?

16 Q Yes.

17 A I'll put the speakerphone on, so I can hear you.
18 Okay, hold on. Okay. This document is seven pages
19 long.

20 Q Seven pages long?

21 A Correct.

22 Q How does that document summarize the testimony of
23 Dr. Leslie Sandler?

24 A Hold on just a moment. Okay. So Pages 2592 to
25 2670, this is the summary employed by DDSN, in

1 capitals, period. It describes various tests that
2 he gave Simmons and their results, period.
3 Suspected malingering on some tests, period. Found
4 no evidence that Simmons would not be able to
5 understand Miranda warning.

6 Q Does it say anything about his conclusion, that he
7 determined he was not mentally retarded?

8 A All it says is what I read you, which makes no
9 mention of mental retardation.

10 Q Okay. Is that the only reference to Dr. Sandler's
11 testimony?

12 A Let me just double-check the document real quick.
13 No, there's another - - - No, there's other
14 references to Dr. Sandler. I'm sorry. I was just
15 reading from Page 1. Okay. So on Page 5, Leslie
16 Sandler, Page 1712 to 1745. He is employed by
17 DDSN, again in capitals. He and Dr. McAbee, M-c-A-
18 b-e-e, evaluated Simmons, period. They determined
19 that Simmons is not MR, in capitals, because there
20 is no evidence of onset before age eighteen,
21 period. He personally administered the, capitals,
22 WAIS-R, end capitals, to Simmons on 2-9-99, period.
23 He found that Simmons had a full scale IQ of 75.
24 Then further down on that page, Leslie Sandler,
25 Pages 1917 to 1923, and then the description is as

1 follows. Describes his education and training,
2 period. He describes a number of
3 neuropsychological tests that Randy Waid, W-a-i-d,
4 did not perform. The tests that Waid administered
5 in no way represents the standard battery of
6 neuropsychological tests that any neuropsychologist
7 in this country would accept. I believe that those
8 are the final references to Dr. Sandler in this
9 seven-page trial transcript summary.

10 Q You made no reference to Dr. Sandler's conclusion,
11 that as the state expert, that Mr. Simmons was not
12 mentally retarded in your report, did you?

13 A Correct.

14 Q You did review the report of Dr. Leslie Sandler,
15 according to Page 3 of your report. Isn't that
16 correct?

17 A I believe so. Let me just turn to my affidavit,
18 just to refresh my memory here. Yes, dated 2-10-
19 1999.

20 Q why did you not include that information in your
21 report, his - - -

22 A I don't recall.

23 Q The opinion of Dr. Sandler concerning mental
24 retardation?

25 A I don't recall why I did not include it in my

1 report.

2 Q You made an assertion that there was evidence of
3 mental retardation, however, in your report. Isn't
4 that correct?

5 A Yes.

6 Q Because you chose to ignore the opinion of Dr.
7 Sandler in your report. Is that not correct?

8 A Yes, that's correct. I think there is evidence of
9 mental retardation, according to other sources.

10 Q Okay. Are you a qualified expert in the assessment
11 of mental retardation?

12 A If you're asking about a clinical psychologist who
13 would give tests to assess mental retardation, no.

14 Q Page 5, Paragraph 5, you state, by the mid 1980s,
15 the use of social science expert testimony in
16 disputed interrogation/confession cases was
17 becoming increasingly common?

18 A Correct.

19 Q How often was that testimony being used in South
20 Carolina in the late 1980s?

21 A I don't know the answer to that question. I don't
22 know that anybody could answer that question,
23 because there is no rec - - - you know, court
24 records or public records of how often an expert
25 would have testified in a case in South Carolina.

1 Q In the late 1980s, are you aware of any expert
2 witness who testified in South Carolina that you
3 listed in Item 36 on the issue of false confessions
4 in South Carolina? Dr. Richard Ofshe, Dr. Saul
5 Kassin, Dr. Lawrence Wrightsman, Dr. Gisli
6 Gudjonsson, Dr. Elliott Aronson, Dr. Daniel
7 Lassiter, are you aware as to if any of those
8 individuals had ever testified in South Carolina in
9 the 1980s?

10 A No, I don't know if any of them have or have not
11 testified in South Carolina in the 1980s.

12 Q How do you define, becoming increasingly common?

13 A Well, I have spoken to these experts. They've
14 relayed to me that they were contacted and/or
15 testified in that time period, and some of them
16 more than others. So the statement that I made
17 that you're referring to is based on my
18 conversations with these individuals.

19 Q Okay. Your next sentence says, by the 1990s, it
20 had already become widespread. Define widespread.

21 A Well, by the 1990s, there were more experts, and
22 they were routinely being contacted and testifying
23 in cases all across the country. That included me
24 as well. I first testified in 1997. So my sense
25 is that, this was really taking off in the 1990s,

1 primarily among the defense bar in criminal cases.
2 Experts in the field were routinely getting
3 contacted about consulting on cases and/or
4 testifying in these types of cases. So it was
5 becoming very common.

6 Q So the first time that you testified was in 1997?

7 A Correct.

8 Q And where did you testify?

9 A In the state of Washington.

10 Q And did you testify for the state or the defense?

11 A For the defense.

12 Q And was your testimony admitted in that case?

13 A Yes, it was admitted. It was a motion to suppress,
14 if my memory is correct, and it was admitted. So
15 it's pre-trial testimony.

16 Q What do you mean, pre-trial testimony?

17 A Well, testimony at a pre-trial hearing, a motion to
18 suppress hearing that was done prior to the actual
19 trial.

20 Q So you did not testify in front of the jury?

21 A The first time I testified, no, it was not in front
22 of the jury. I did eventually testify in front of
23 a jury. About two-thirds of the time when I've
24 testified, it has been in front of the jury at
25 trial.

1 Q Approximately how many confessions were done
2 between 1987 and 1997?

3 A I don't know the answer to that question. Are you
4 asking how many confessions were made in criminal
5 cases in the United States in that ten-year period?

6 Q Yes.

7 A Yeah, I don't know the answer to that question, and
8 I'm not aware of anybody who does. I don't think
9 the government or any other - - - any private
10 organization would keep records that would allow us
11 to answer that question.

12 Q Are you aware that there has been studies that have
13 asserted that there were twenty-three million
14 interrogations between 1987 and 1997. Is that - -
15 - You're aware of that, aren't you?

16 A No. As we speak here today, no, I'm not aware of
17 that.

18 Mr. Morton - Can you give us the cite of that
19 study, Mr. Zelenka?

20 Mr. Zelenka - Sure. I'll get right to it.

21 Paul Cassel - - - Well, I can give you a
22 better one. Touro Law Review, 26 Touro Law
23 Review, 23, the (In)Admissibility of False
24 Confession Expert Testimony by David Perez.
25 He makes reference to that.

1 Mr. Morton - which law review are you saying?

2 I couldn't under - - -

3 Mr. Zelenka - Touro, T-o-u-r-o.

4 Mr. Morton - Okay.

5 Mr. Zelenka - He makes reference to that in
6 that law review article and makes specific
7 reference to Paul Cassel, C-a-s-s-e-l. If I
8 can find for you the exact cite to that, I
9 will in a moment. It's Paul Cassel, Balanced
10 Approaches to the False Confession Problem: A
11 Brief Comment on Ofshe, Leo, and Alschuler, 74
12 Denver University Law Review, 1123 at Page
13 1127 (1997), calculating that twenty-three
14 million suspects were interrogated between
15 1987 and 1997 for index crimes.

16 FURTHER EXAMINATION - (By Mr. Zelenka)

17 Q Dr. Leo, you have read that article's criticism of
18 your reports, haven't you?

19 A A long time ago, yes. I did read this article, and
20 it was in response to an article that we had
21 written as well that's published in the same
22 volume.

23 Q You would agree that no data exists of how often
24 certain interrogation tactics lead to false
25 confessions, wouldn't you?

1 A Yes, if you're - - - If you are - - - If I
2 understand your question correctly, you're asking
3 for a specific percentage. So X Technique leads
4 ninety-seven percent, or three percent, or five
5 percent of the time in all cases when used? I
6 would agree. I also want to just clarify, since
7 I'm looking at the citation that you mentioned in
8 the Denver Law Review. This number of twenty-three
9 million that you referred to is just an estimate.
10 It's not an actual - - - It doesn't refer to
11 anything real. It's an estimate about the number
12 of interrogations that Professor Cassel believes
13 occurred in a time period.

14 Q Okay. How often do false confessions occur?

15 A So again, if I understand your question correctly,
16 you're asking for a specific - - - either a
17 specific percentage or a specific number. There's
18 no way to know that because researchers can only
19 access data that's publically accessible, and
20 presumably many times when people falsely confess,
21 there is no record of it. There's no way for
22 researchers to access it. So we can't tell you
23 exactly how many false confessions there are or
24 what percentage of confessions are false. There's
25 simply no way anybody can tell you that. There are

1 several hundred documented cases of false
2 confession. We believe this, for various reasons,
3 to be the tip of a much larger iceberg, but to - -
4 - To ask how many are there specifically, we do not
5 know the exact or specific number. Nobody does.

6 Q Okay. So you would similarly not know the rate of
7 confession with those techniques on certain
8 individuals, juveniles, mentally retarded, low-
9 functioning IQ individuals, correct?

10 A Correct. We don't know how many - - - We can't
11 come up with the same - - - the number. You know,
12 X percent of times when this technique is used on a
13 mentally retarded person, it would lead to a false
14 confession, or why. We simply don't have access to
15 that data. The same could be true - - - could be
16 said about true confessions. We don't know exactly
17 how many true confessions there are or exactly what
18 percentage of the time, when a particular technique
19 is used, that leads to a true, or contributes to a
20 true, confession or the same about the groups of
21 individuals that you just mentioned. Nobody has
22 that kind of data.

23 Q In your 1998 study, you acknowledged that you
24 didn't have a statistically adequate sample in that
25 study. Isn't that correct?

1 A Yes. It wasn't a random statistical sample. It
2 was a collection of cases, sixty cases of false
3 confessions. There is no way we could sample a
4 known universe of false confessions because nobody
5 keeps that kind of data, no governmental or private
6 organization. So we literally had to search out
7 these cases to find them, and then to analyze them.

8 Q And a number of those cases within that case study,
9 Mr. Cassel opined that they shouldn't even be in
10 that particular study. Isn't that correct?

11 A That is correct. Nine of the sixty cases, he
12 disputed our analysis, and he provided his own
13 analysis of why he thought those nine of sixty
14 cases were really true confessions. Then we
15 published a subsequent article refuting his
16 analysis, point-by-point, to which he never
17 responded in those nine cases.

18 Q So in your 1998 study, you said twenty-four of
19 those cases were proven to be false. He - - -

20 A No. Actually, thirty-four were proven at the time
21 to be false by the criteria we set out in that
22 article.

23 Q But eighteen, you felt, were highly probably false?

24 A Correct.

25 Q But that doesn't mean they're false, does it?

1 A Well, that meant in our judgment that we thought
2 there was a very high probability that they were
3 false, but it doesn't mean that we can prove that
4 they're absolutely false, no.

5 Q Okay. And in your study, you relied upon newspaper
6 articles to get your information, correct?

7 A Newspaper articles were one source, but not the
8 exclusive source of information. We relied on
9 numerous other sources as well.

10 Q ABC's 20/20?

11 A In one of the cases, ABC's 20/20 had done a
12 thorough report on a case, and that was one of the
13 sources that we consulted.

14 Q Was the state always in agreement with your
15 assessment of the innocence of those individuals?

16 A I'm sorry. I didn't understand the first part of
17 your question. Can you ask it again? The who?

18 Q Was the government always - - -

19 A Oh, the government.

20 Q In agreement with your assessment of the
21 individuals that were proven false or highly
22 probably false?

23 A I'm sure there were some cases where the government
24 would not be in agreement. If one study is
25 wrongful convictions, including DNA exonerations,

1 there's numerous cases where the government will
2 not concede that someone is innocent.

3 Q But you are in agreeance, even when the information
4 you had is available, it's often difficult to
5 determine with certainty whether a confession is
6 false?

7 A That is correct, yes. With near or absolute
8 certainty, yes.

9 Q What is the scientific method that has been used to
10 determine the falsity of these confessions?

11 A Well, the scientific methods are used to gather and
12 analyze data, and there are five scientific methods
13 that have been used to gather and analyze data in
14 studies about false confessions or related issues,
15 either field observation or interviews or
16 experimental studies or surveys or analysis of
17 documents. So those are - - - with regard to the
18 scientific methods, those are the methods that are
19 used, and they're generally accepted, you know, in
20 all of the social sciences. Some rely more on one
21 or two or more methods than others, and which
22 method is appropriate really depends on the
23 research question and the limits of data gathering
24 on any phenomenon. Now, how to determine whether a
25 confession is false, there are criteria for

1 determining whether a confession can be proven
2 false. You would refer to the proven false
3 confessions in the nineteen - - - in one of my 1998
4 articles. Although, I knew which one you were
5 referring to. There's really only four ways you
6 can know with absolute certainty or near absolute
7 certainty whether a confession is false. One is if
8 you can show the crime never occurred. Two is if
9 you can show it was physically impossible for the
10 person who confessed to have committed the crime.
11 Three is if there's scientific evidence. Often
12 these days, but not exclusively, DNA that
13 demonstrates the confession was false. Or four,
14 the true perpetrator is apprehended, and everybody,
15 including law enforcement, agrees that the true
16 perpetrator is the one who did the crime. Thus,
17 the confessor confessed falsely. That would be the
18 criteria for a proven false confession. Short of
19 those four criteria, you can't absolutely prove a
20 confession is false. It's a very difficult thing
21 to do because you have to prove the negative.
22 There are many other cases like the highly probable
23 false cases, false confession cases, that you
24 referenced. Where researchers evaluating the
25 totality of the record would come to the

1 conclusion, or might come to a conclusion, that a
2 confession is almost certainly false based on the
3 evidence in the record, and the lack of any
4 corroboration is a strong indication that the
5 confession is likely false. Now, of course, I'm
6 talking about my research and the research of
7 others. I'm not talking about any court testimony
8 since no expert would say in court that a
9 confession was false, since that's not the judgment
10 for an expert to make when they testify in cases
11 where a confession is being disputed.

12 Q Okay. And you similarly can't say that there's a
13 particular causal link that caused, therefore, a
14 confession to be false. Isn't that correct?

15 A Well, I mean, I - - - I think there are times when
16 we can say that certain things appear to have
17 caused a confession to be false. So I guess I
18 would disagree with you. It really depends on the
19 evidence in a particular case for causation.

20 Q But those things could lead to a truthful
21 confession, too. Isn't that correct?

22 A Certainly, yeah. As a general matter, certain
23 interrogation techniques could lead to a truthful
24 confession, if they're being applied to a guilty
25 individual. Just like they could lead to a false

1 confession if they're being applied to an innocent
2 individual. Certain techniques appear to be more
3 common in the false confession cases than the true
4 confession cases, but yes, the same techniques
5 could cause both a true and a false confession.

6 Q And guilty individuals do not necessarily confess
7 the first time they're asked. Isn't that correct?

8 A Correct.

9 Q And guilty individuals frequently could make
10 statements to attempt to put themselves in a better
11 light. Isn't that correct?

12 A That is correct, yes. It's also an interrogation
13 technique to get suspects to think that, by
14 confessing or agreeing with a certain account that
15 incriminates them, that they will be put in a
16 better light.

17 Q Okay. And the guilty individual may want to put
18 the blame on a third party, to put - - -

19 A Yes. That is correct.

20 Q Themselves in a better light?

21 A It's also an interrogation technique to persuade a
22 person to put the blame on a third party by
23 confession.

24 Q But the person may be trying to put the blame on a
25 third party to help themselves, correct?

1 A That is correct, yes, or they may believe that they
2 are trying to help themselves. Again, this is also
3 an interrogation technique to encourage a suspect
4 to believe that, by putting the blame on a third
5 party, they will be helping themselves.

6 Q In this situation, you're aware that the DNA
7 testing that was done has not eliminated Kenneth
8 Simmons from being the perpetrator in this case,
9 aren't you?

10 A Yes.

11 Q And you're aware that Mr. Simmons gave multiple
12 statements where he confessed to being the
13 perpetrator and the sole perpetrator in this case,
14 aren't you?

15 A Yes.

16 Q In your assessment, you had the ability to review
17 lengthy tape-recorded transcripts - - - or
18 transcripts of tape-recorded statements involving
19 the interrogation of Mr. Simmons, correct?

20 A Yes, I did review those materials. I don't know
21 that I would agree they were lengthy, but yes.

22 Q In any of those statements, did you see or read any
23 physical threats towards Mr. Simmons?

24 A No.

25 Q Did you see any specific promises that were made

1 towards Mr. Simmons?

2 A Not on those transcripts, no, but they were
3 incomplete recordings of the fuller interrogations.
4 So it's possible that there were threats or
5 promises during the unrecorded portions of the
6 interrogations that were not on the recorded
7 portions.

8 Q Did you see any part in the transcripts of the
9 testimony of Kenneth Mears, Detective Hendricks,
10 Anne Reese, or Everett Howard where such things
11 occurred?

12 A No. My recollection is that they denied that, but
13 again, there is no objective record of the entire
14 interrogations that led to Mr. Simmons' statements.

15 Q In that material, did you see any information where
16 Mr. Simmons was provided with any factual
17 information concerning the crime itself?

18 A I don't recall.

19 Q Would you agree that all of the factual information
20 concerning the crime itself, was that presented by
21 Mr. Simmons in his variety of statements that he
22 gave?

23 A I don't agree because, since most of the
24 interrogations were not recorded, we don't know
25 where the information came from. In just looking

1 at the very limited portions that were recorded,
2 one might be able to make that statement, but we
3 don't know because most of the interrogations were
4 not recorded. So what we call the problem of
5 contamination, the feeding of facts to an
6 individual, could have come from the law
7 enforcement officers in the unrecorded section.

8 Q Did Mr. Simmons testify in the Jackson v Denno
9 hearing at trial?

10 A My recollection is that he never testified, either
11 at the suppression hearing or at his trial.

12 Q Did his attorney ever suggest, in any of his
13 testimony - - - Or has the attorney suggested in
14 his testimony that Mr. Simmons was provided with
15 any information about the facts of the crime before
16 he had given his statements?

17 A I guess I'm a little confused by your question. I
18 just want to make sure I understand it. So Mr.
19 Simmons never testified. So I think you asked the
20 question, and please correct me if I'm wrong, did
21 the attorney ever suggest that in Mr. Simmons'
22 testimony he was provided that? So it just seems
23 like the answer would have to be no, since he never
24 testified, unless I'm misunderstanding your
25 question.

1 Q I think you are misunderstanding my question. My
2 question is, did the lawyer have any information
3 from Mr. Simmons prior to the time of the trial
4 that he could have utilized to suggest that the
5 factual information was information which was given
6 to him by a third source?

7 A I don't know whether the attorney for Mr. Simmons
8 at trial had any such information.

9 Q Do you possess any special knowledge or training to
10 make a determination that a confession is false
11 different than a lay juror?

12 A Well, yes. Of course, I do. In our research, we
13 write about that, those kinds of judgments. We
14 make those judgments all the time in studies of
15 false confessions, but I would never testify before
16 a jury that I believe a confession is false because
17 that would invade the province of - - - That's not
18 the nature or the purpose of this kind of
19 testimony.

20 Q Just to close out, what is your hourly rate?

21 A Well, these days, my hourly rate is two seventy-
22 five an hour, but at the time, I think I was
23 charging two fifty an hour.

24 Q And approximately how many hours have you spent on
25 this case?

1 A I've spent, I would estimate, maybe forty to forty-
2 five hours total on this case.

3 Q And how much in preparation - - - Does that include
4 preparation for today's deposition?

5 A Yeah, and I - - - I did not spend much time
6 preparing for today's deposition, just a couple of
7 hours or so reviewing the case file and the case
8 materials. The majority of time that I spent
9 working on this case was from when I was first
10 contacted in June of '09 until January of 2010,
11 this year, when I produced the affidavit. So I
12 spent approximately forty hours in that time
13 period, June of '09 to January of 2010, and just
14 two or three hours - - - I'd have to look at my
15 time sheets - - - in reviewing these materials in
16 the last couple of days in preparation for this
17 deposition.

18 Q And in conclusion, Kenneth Simmons did give a
19 statement that he killed Lilly Mae Boyd, correct?

20 A Well, yes, several statements as I mentioned in the
21 affidavit that were inconsistent with one another.

22 Q Okay. And that he had had - - -

23 whereupon - Another line rings on the
24 speakerphone, and questioning was temporarily
25 halted. A brief discussion was held off the

1 record which was not reported.

2 Q Excuse me, Doctor.

3 A Sure.

4 Q And that he had had sexual conduct with the victim,
5 correct?

6 A Correct.

7 Q And that he had strangled the victim, correct?

8 A Yes.

9 Q And he had given earlier statements where he was
10 asserting that other individuals had killed,
11 strangled, and beaten the victim, correct?

12 A Correct, multiple statements that are inconsistent
13 and change over time.

14 Q And the victim was strangled and was beaten about
15 the head, correct?

16 A Correct.

17 Mr. Zelenka - I have no further questions at
18 this time.

19 Mr. Morton - Thank you, Mr. Zelenka. Just a
20 couple, Dr. Leo.

21 E X A M I N A T I O N - (By Mr. Morton)

22 Q You indicated that it was apparent to you from the
23 transcripts that you reviewed that the complete
24 interrogations conducted on Mr. Simmons by the
25 police were not recorded, and that this is not a

1 complete rendition of the entire interrogation.

2 why do you say that?

3 A Well, there are several interrogations from
4 December 2nd to December 9th. What we have is a
5 series of statements, but we don't have the process
6 that produced those statements. They're really the
7 conclusion of the interrogations, and so we don't
8 know the full record of what occurred. Usually,
9 there's a process of interrogation that leads to
10 statements, and that allows you to understand why
11 certain statements were made. That process was not
12 recorded here, for the most part. What appears to
13 be recorded is just brief recaps or summaries of
14 the individual or some of the individual
15 interrogations, as I mentioned in the affidavit.

16 Q And because it's not your belief that the entire
17 interrogation was recorded, is there any way to
18 know what information the police gave to Mr.
19 Simmons before these summaries were taken?

20 A No. There's no way to know what information was
21 provided to Mr. Simmons during the interrogations
22 because they were not fully recorded. That is the
23 problem. Of course, there was a lot of publically
24 known information about this case, which was
25 covered in the media as well.

1 Q Dr. Leo, on the last page of your affidavit at
2 Paragraph 36, you indicate that the prevalence of
3 false confession experts in 1999 was widespread and
4 available. Can you elaborate on that any?

5 A Well, my understanding, I had testified many times
6 by 1999. I'd have to look in my records to give
7 you a specific number, but my estimate would be, at
8 that point, between twenty-five and forty times.
9 These other experts - - - Some of these other
10 experts had testified many more times than me.
11 This was an area that the defense - - - the
12 criminal defense bar across the country had started
13 paying a lot of attention to in the 1990s. All
14 experts in this area were regularly getting phone
15 calls to give talks to various defense lawyers, to
16 consult on cases, to testify in cases. So it was
17 an area that was, by 1999, very well known in the
18 defense bar across the country, more so in some
19 states than others. This was an area that defense
20 attorneys were regularly looking into when they had
21 what they believed to be a false or disputed case.
22 I think as I mentioned in response to one of the
23 first questions by the state's attorney, the first
24 time I had been contacted to consult in a case, a
25 South Carolina case, was in 1998. Although, I had

1 been contacted by many - - - in many other cases
2 before then in other states.

3 Q And some of these experts, is Dr. Gudjonsson in
4 Atlanta?

5 A Dr. Gudjonsson is an English psychologist, a former
6 police officer, who has come to the United States
7 on several, if not many, occasions to work on cases
8 or testify. All of the other individuals listed in
9 that paragraph on Page 17, Number 36 of the
10 affidavit, are all American professors, but he is
11 the one English professor who sometimes works in
12 the United States.

13 Q And I realize you don't have any specific
14 information regarding how many times these experts
15 that you listed had testified prior to 1999, but
16 could you give us an estimate?

17 A Well, I would estimate that if you took all of
18 these individuals, including myself, and asked
19 them, how many times have you testified in the
20 United States in criminal or civil cases on this
21 subject through 1999 or by 1999, that the number
22 would be somewhere around a hundred. That would be
23 my estimate. Probably more, actually. I know that
24 Dr. Ofshe, the first individual who I've listed,
25 has testified many, many times. He had started

1 working and testifying on these cases in the 1980s,
2 so the number might actually be higher than that.
3 But that would be my estimate, maybe fifty to a
4 hundred-and-fifty times, something like that.

5 Mr. Morton - Okay. Dr. Leo, I think that's
6 all I have. Don, do you have any follow up?

7 Mr. Zelenka - Yes, just a little follow up on
8 that last part.

9 FURTHER EXAMINATION - (By Mr. Zelenka)

10 Q Dr. Richard Ofshe, where is he located?

11 A He's a professor, now an emeritus professor, at the
12 University of California-Berkeley. So he's located
13 in Northern California.

14 Q Dr. Saul Kassin?

15 A Dr. Kassin is a professor at John Jay College of
16 Criminal Justice in New York City.

17 Q Dr. Lawrence Wrightsman?

18 A He's a professor of psychology at the University of
19 Kansas.

20 Q Dr. Gisli Gudjonsson?

21 A I believe he teaches, I have to double-check this,
22 in the psychiatry or psychology department at
23 King's College in London. It may be the University
24 of London. I'm not sure. King's College may be in
25 the University of London. But as I mentioned

1 earlier, he is the only English professor. In
2 other words, a professor who works in England.
3 Although, he studies false confessions in England
4 and America and across the world. So that is where
5 he's located.

6 Q My understanding was the Institute of Psychiatry in
7 London?

8 A Yeah. I think it's the University of London, and I
9 think it's King's College. One could easily find
10 that information out through putting his name into
11 Google or putting King's College in. So that would
12 be easily accessible public information. Dr.
13 Elliott Aronson is a professor at the University of
14 California at Santa Cruz, and finally, Dr. Lassiter
15 is a professor of psychology at Ohio University in
16 Athens, Ohio.

17 Q Okay. And you gave an estimate of between fifty
18 and a hundred-and-fifty times - - -

19 A Correct. Because I - - - I would have to check my
20 records, but I think I had testified, as I said, I
21 think twenty-five or forty times by then. So I
22 believe Dr. Ofshe would have testified even more
23 times by that point, and I'm not really sure how
24 often some of the other persons listed here had
25 testified by that point in 1999.

1 Q And in those numbers of cases, where testimony had
2 been given to the jury, how often did a not guilty
3 verdict result?

4 A Well, I don't know, because I would have had to
5 have asked these individuals for them to give me
6 that information. I know in my own - - - In my own
7 cases, I don't keep track how often there's a
8 guilty or not guilty verdict. Oftentimes, when I
9 try to find that information out, I haven't been
10 able to. But I simply don't know the answer to
11 that question.

12 Q So you don't know of any case that you testified in
13 that the jury still came back with a guilty
14 verdict?

15 A Well, if I looked at a list of the cases that I
16 have testified in, I think I would know that some
17 of them involved guilty verdicts, and some of them
18 involved not guilty verdicts. So certainly by this
19 point, I've testified enough times that there have
20 been both, but off the top of my head, no. I'd
21 have to look at a list and try to remember. Some,
22 I would know, you know, I would remember easily.
23 Others, I would not.

24 Q Okay. Paul Cassel estimated that in your 1997
25 article, you were forty-five percent wrong. Does

1 that sound right?

2 A Well, I think what you're referring to is Professor
3 Cassel's 1999 article in which he was criticizing
4 our 1998 article of sixty cases. He did come up
5 with that number, forty-five percent, but it's
6 really a bogus number. Because as I had said to
7 you earlier, he challenged nine of the sixty cases
8 and said those were false - - - those were true
9 confessions. I had mentioned in my earlier
10 testimony that we had written an article in 2001,
11 arguing that he was wrong about those nine cases.
12 But even if you say, for argument's sake, that he
13 is right about those nine cases, which I don't
14 believe he is, nine over sixty is fifteen percent,
15 not forty-five percent. So he exaggerates that
16 number by a factor of three indefensibly. So you
17 are correct, he puts the number forty-five percent
18 in his article, but it's false and misleading.
19 According to his own estimate, the number would
20 have to be fifteen percent, if he's correct with
21 nine over sixty, but he did not - - - He is not
22 correct.

23 Q And you don't have any recollection or any specific
24 knowledge of the number of cases - - -

25 whereupon - Another line rings on the

1 speakerphone, and questioning was temporarily
2 halted. A brief discussion was held off the
3 record which was not reported.

4 Q Okay. We're back on. You do not have any manner
5 of estimating when a jury has agreed with your
6 assessment and made a determination that a
7 confession was, in fact, false in any time you've
8 testified. Is that correct?

9 A Well, I need to be really clear that when I testify
10 in cases, it's not necessarily because I have
11 determined the case was - - - a confession was
12 false. If the defense attorney chooses to call me
13 to testify, then I would testify, and you know, I'm
14 not making the judgment. It's not the role for the
15 expert. Some of those cases, privately, I may
16 believe are false. Some of those cases, I simply
17 don't know whether they're false, or I haven't
18 thought about whether or not they're false. There
19 may even be cases where I don't think they're
20 necessarily false, but it's not an analysis that I
21 go through when I testify in court because that is
22 not within my role as an expert testifying in
23 court. It's for the jury to know whether or not -
24 - - to decide whether or not they're false. It's
25 only for me to give the jury information, based on

1 the scientific field, that would be helpful to them
2 generally in their analysis. So I - - - You know,
3 just because I testify, it doesn't mean that I
4 think it's false. I could keep track of the number
5 of times - - - assuming attorneys always return my
6 calls, which they don't - - - where when I testify
7 in front of a jury, there's a guilty or a not
8 guilty verdict, but that doesn't really tell you
9 very much about this field.

10 Mr. Zelenka - Okay. I have no further
11 questions. Thank you, Doctor.

12 Mr. Morton - I have - - -

13 Mr. Zelenka - I appreciate your time.

14 Mr. Morton - I have no further questions.

15 Thank you very much, Dr. Leo.

16 Whereupon - Deposition was concluded at

17 3:31 p.m.

Signing of Transcript Kelly Reiter
Court Reporter/Notary Public
of Deposition By

Witness Waived

(Recorded deposition tapes retained for fifteen days
from date of certification or until transcript has been
signed in cases when signature is not waived)

CERTIFICATE OF REPORTER

State of South Carolina)
County of York)

I, Kelly Reiter, a Notary Public for the State of South Carolina, do hereby certify that I placed under oath the aforesaid deponent; that I reported the foregoing proceedings at the time and place herein designated and that the foregoing pages are a true, accurate and correct transcript of the aforesaid proceedings.

I further certify that I am not a relative, employee, attorney or counsel of any of the parties, nor relative or employee of such attorney or counsel, nor in anyway interested in the event of said cause.

In witness my hand and official seal this the 36th day of July, 2010, in the City of Rock Hill, County of York, State of South Carolina.

Kelly Reiter
Kelly Reiter
Court Reporter/Notary Public

My Commission Expires:
8-30-2012

State of South Carolina)
County of Dorchester)

Court of Common Pleas
2005-CP-18-01368

Kenneth Simmons)
Plaintiff)
vs.)
State of South Carolina)
Defendant)

Post-Conviction Relief
Transcript of Record

July 2, 2012
Bamberg, South Carolina

B E F O R E:

The Honorable Doyet A. Early, III, JUDGE.

A P P E A R A N C E S:

Emily C. Paavola, Esq.
Attorney for the Plaintiff

Donald Zelenka, Esq.
Attorney for the Defendant

Lisa H. Davenport, RPR
Official Court Reporter

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PLAINTIFF EXHIBITS

<u>NO</u>	<u>DESCRIPTION</u>	<u>ID</u>	<u>EV</u>
A	C.V. of Dr. Word		10
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1 (Whereupon, on July 2, 2012 the following proceedings
2 were held:)

3 THE COURT: Okay. We will continue where we left
4 off. Good morning.

5 MS. PAAVOLA: Your Honor, the applicant calls
6 Dr. Charlotte Word.

7 CHARLOTTE WORD, after being duly sworn,
8 testified as follows:

9 DIRECT EXAMINATION

10 BY MS. PAAVOLA:

11 Q Good morning, Dr. Word. Could you state and spell
12 your name for the court reporter, please?

13 A Yes. My name is Charlotte Word; C-H-A-R-L-O-T-T-E
14 W-O-R-D.

15 Q Could you briefly explain your educational background
16 for the court?

17 A Certainly. I have a Bachelors of Science in Biology
18 from the college of William and Mary in Virginia and I
19 have a Ph.D from the University of Virginia in
20 microbiology with specialties in immunology and molecular
21 biology.

22 Q Did you do some post doctoral works as well?

23 A Yes, I did. I was at the University of Texas Health
24 Science Center Southwestern Medical School for
25 approximately three and a half years where I did research

1 in the areas of human molecular biology and immunology.

2 Q What about your employment history? Could you
3 describe that, please?

4 A Yes. I worked at the University of New Mexico School
5 of---

6 THE COURT REPORTER: Can she turn this way a little
7 bit? I can't---

8 THE COURT: Please direct your response to her.

9 THE WITNESS: Okay. I worked at the University of
10 New Mexico School of Medicine as a faculty member there
11 for approximately five and a half years and then in 1990 I
12 went to Cellmark Diagnostics which is a private DNA
13 testing firm located in Germantown, Maryland, and I was
14 employed there until 2005.

15 Q And is that what is now known as Orchid Cellmark?

16 A Orchid bought our company, I believe, in 2001 and
17 changed the name to Orchid Cellmark.

18 THE COURT: Hold on a second.

19 Ma'am, y'all are going to have to let those children
20 go outside.

21 THE WITNESS: The facility that I was in actually
22 closed in 2005 and was consolidated with other Orchid
23 laboratories at that time.

24 Q When you were employed with Cellmark what were your
25 duties there?

1 A I had a number of responsibilities. One of them was
2 to review the case work that was done by our DNA analyst,
3 review the documentation and the case file, independently
4 review the testing results, and confirm that those tests
5 were conducted appropriately and then cosign the reports
6 with the DNA testing analyst. I also went to court and
7 testified to our findings. I was also involved with a
8 significant amount of the training in our laboratory of
9 new analysts.

10 I was involved with bringing on new testing
11 procedures in the laboratory, doing some of the validation
12 studies to support that those procedures as well as
13 helping write the standard operating procedures that we
14 use for using those procedures. I also did a fair amount
15 of consulting work either for the prosecution or the
16 defense where I would review case files from work
17 performed in other laboratories and assist those attorneys
18 -- usually we were retained by attorneys -- assist the
19 attorneys in understanding the work that was done and the
20 significance of the work that was done in those cases.

21 Q How are you currently employed?

22 A I'm currently a consultant.

23 Q What kinds of things are you typically asked to do
24 when you're hired as a consultant?

25 A Many of the same things I just said that I did in my

1 testing laboratory. I am often retained to review the
2 work done in various laboratories -- again, to help the
3 attorneys understand the work that was done, the
4 significance of it, the appropriate way to present it in
5 court. I do review validation studies. I have been doing
6 technical review of case files from various DNA testing
7 laboratories. I also perform audits and inspections of
8 laboratories against the current standards that are
9 required for DNA testing laboratory facilities.

10 Q Is that what you do in your role performing lab
11 accreditation reviews?

12 A That's correct.

13 Q Okay. And that's for labs who want to be accredited
14 by various agencies?

15 A That's correct.

16 Q How much of your current work is for the prosecution
17 versus the defense?

18 A Well, it certainly varies. I would say right now
19 probably 80 percent of what I'm doing is for the defense.
20 I have a lot of post-conviction cases that I'm working on,
21 but it varies. I get called from prosecution crime labs,
22 independent labs, and defense attorneys on a regular
23 basis.

24 Q In your prior employment how much of your work was
25 for the prosecution rather than defense?

1 A Our laboratory did DNA testing work and we had a
2 large number of contracts with various law enforcement
3 agencies and so the bulk of our testing work was for the
4 prosecution or for law enforcement actually, but ended up
5 working ultimately for prosecutors when we went to court.
6 Our consulting work was largely from the defense
7 community, but, again, we consulted for you know whoever
8 called us requesting our help.

9 Q Have you previously been qualified as an expert in
10 forensic DNA and statistical analysis in court?

11 A Yes, I have.

12 Q How many times approximately have you been prosecuted
13 -- have you been qualified as an expert for the
14 prosecution?

15 A I've testified approximately 300 times and I've
16 probably -- Well, the vast majority of those has been for
17 the prosecution. I've testified somewhere between 10 and
18 20 times probably for the defense.

19 Q Are you a member of any professional associations?

20 A Yes, I am.

21 Q Are you a member of the American Academy of Forensic
22 Sciences?

23 A Yes, I am.

24 Q And the American Society of Human Genetics?

25 A Yes, I am.

1 Q Are you a member of the editorial board for the
2 Journal of Forensic sciences?

3 A Yes, I am.

4 Q What does that involve?

5 A When researchers or various individuals want to
6 submit a paper for publication they submit it to the
7 editor of the Journal of Forensic Sciences and before that
8 paper can be published it needs to undergo what's called
9 the peer review process and the editor sends out that
10 manuscript to two or three individuals who review it,
11 critique it, write back recommendations as to whether the
12 paper is worthy of being published, whether we recommend
13 that it should be published or not, and then can make
14 recommendations to the authors regarding appropriate
15 corrections that could be made to make the manuscript more
16 readable or more understandable to the public in that
17 field, and, so, as an expert in DNA testing each month I
18 get a paper to review regarding some area of DNA testing.

19 Q And how long have you been a member of that editorial
20 board?

21 A I think I've been an official member since 2004,
22 2005, but I was doing reviews as an ad hoc reviewer prior
23 to that time for a number of years.

24 Q Were you previously a member of the post-conviction
25 issues working group on the national commission on the

1 future of DNA evidence?

2 A Yes, I was.

3 Q Can you explain what that was?

4 A Yes, I can. Under Attorney General Janet Reno a
5 commission was put together to look at the future of DNA
6 testing and a number of subcommittees were put together to
7 address certain topics and I was the lab representative or
8 the scientific representative to the panel that was
9 looking at post-conviction DNA testing issues and there
10 were a judge, two defense attorneys, two prosecutors,
11 myself, a victim witness coordinator, and maybe one or two
12 other individuals on that panel. We published a book
13 through the National Institutes of Justice making
14 recommendations to prosecutors, defense attorneys,
15 laboratories, victim witness coordinators regarding how
16 post-conviction DNA testing should be addressed or could
17 be addressed.

18 Q Have you authored any other publications in your
19 field?

20 A Yes, I have.

21 Q And do you know approximately how many?

22 A I actually don't recall without looking at my
23 curriculum vitae -- maybe 10 in the area of forensic
24 science. I don't recall.

25 Q I'd like to show you what's been premarked as

1 Plaintiff's Exhibit A.

2 THE COURT: "A" like in apple?

3 MS. PAAVOLA: Yes, sir. May I approach, Your Honor?

4 THE COURT: You may.

5 Q Dr. Word, do you recognize that document as a current
6 copy of your CV?

7 A Not as a current copy. It's a year old, but it's
8 largely up to date. There are a few meetings that I've
9 attended that should be added, presentations that I've
10 made, but it's largely up to date.

11 Q All right. And does that document outline your
12 experience that you've just explained for the court as
13 well as some additional items that we didn't cover?

14 A Yes, it does.

15 MS. PAAVOLA: We would move to admit Plaintiff's
16 Exhibit A.

17 MR. ZELENKA: No objection.

18 MS. PAAVOLA: Your Honor, at this time we would ask
19 that Dr. Word be qualified as an expert in forensic DNA
20 and statistical analysis.

21 MR. ZELENKA: No objection.

22 THE COURT: She will be so qualified. She may render
23 an opinion -- opinions.

24 (WHEREUPON, Plaintiff's Exhibit No. A was admitted
25 into evidence.)

1 Q Okay. Dr. Word, can you tell us what you were asked
2 to do in this case?

3 A I was asked to review a set of documents regarding
4 this case and provide my opinion regarding those
5 documents.

6 Q And what documents did you review? Could you just
7 list those for us, please?

8 A I reviewed copies of notes from DNA testing work that
9 was performed by Lifecodes Corporation. I reviewed the
10 original---

11 THE COURT: Go ahead.

12 THE WITNESS: I also reviewed the original files as
13 well as the original films, original sets of data from
14 those files. I reviewed trial transcripts from two
15 individuals. One is Dr. Michael Baird and Ms. Lauren
16 Crane and I also reviewed depositions by those two
17 individuals taken I believe two years ago.

18 Q Okay. And when you said that you reviewed the
19 original films, is that the right term for this?

20 A Yes.

21 Q When you reviewed the original films, you did that in
22 person?

23 A Yes, I did.

24 Q And where was that?

25 A In the Orchid Cellmark Laboratory in Dallas, Texas.

1 Q All right. And as a result of your review of those
2 materials did you formulate any opinions to a reasonable
3 degree of scientific certainty in your field about the DNA
4 testing, reporting, and testimony in this case?

5 A Yes, I did.

6 Q And are the bases for those opinion set forth in the
7 written affidavit that you filed jointly with Dr. Cotton
8 in this case on March 23, 2011? I would hand you what's
9 been premarked as Plaintiff's Exhibit B.

10 A I have a date of March 12 on this.

11 THE COURT: March 12 what year?

12 THE WITNESS: 2011. I'm sorry. Yes. I believe you
13 said the 23rd or did I mishear or misremember?

14 Q I stand corrected. That's right. And in addition to
15 that did you also prepare a supplemental affidavit?

16 A Yes, I did.

17 Q I'll hand you what's been marked Plaintiff's Exhibit
18 C and ask you if you recognize that as the supplemental
19 affidavit?

20 A I do, yes.

21 Q And did you prepare this affidavit after your trip to
22 the lab at Orchid Cellmark in Dallas, Texas?

23 A Yes, I did.

24 MS. PAAVOLA: Your Honor, at this time we would move
25 to admit Applicant's Exhibits B and C.

1 THE COURT: Any objection?

2 MR. ZELENKA: Indulgence one moment, Your Honor.

3 Your Honor, we would enter an objection at this time.

4 She's here to testify about her opinions and her results.

5 We don't see any need to have the affidavit put in under

6 Rule 703 at this particular time.

7 THE COURT: Thank you. Overruled. I'll allow it.

8 (WHEREUPON, Plaintiff's Exhibit Nos. B & C were
9 admitted into evidence.)

10 Q Now, Exhibit B is the joint affidavit that you
11 prepared with Dr. Cotton; is that correct?

12 A Yes, it is.

13 Q Can you explain how Dr. Cotton became involved?

14 THE COURT: Spell that last name. Doctor who?

15 MS. PAAVOLA: Cotton; c-O-T-T-O-N.

16 THE WITNESS: I contacted you having -- after I read
17 the re-- reviewed the case and recognized that there were
18 some significant issues with the testing in this
19 particular case and asked if you needed an additional or
20 interested in having an additional expert review this;
21 that I knew a colleague who would likely have similar
22 opinions to me and who might be interested in working on
23 this case.

24 Q Now how did you---

25 A And provided your name -- her name to you.

1 Q How did the two of you go about your work in this
2 case? Did you work together from the beginning?

3 A We did not. I don't recall -- I believe you provided
4 the discovery material to her, although I may have
5 provided some of it, but I did not discuss the case with
6 her in advance other than to say that I thought this was a
7 case she might be interested in working on and I did not
8 discuss any of my opinions or findings prior to her
9 getting the case materials.

10 Q All right.

11 A Prior to her getting them and reviewing them.

12 Q But ultimately you two determined to prepare a joint
13 affidavit.

14 A Yes.

15 Q Why was that?

16 A We recognized that our opinions were the same and
17 that it would take less time for us and the court to have
18 one single affidavit jointly stating our opinions.

19 Q Okay. So now I'd like to ask you about the actual
20 testing that occurred in this case and I'd like to begin
21 with the BQ Alpha Polymarker test results. In order to
22 illustrate your testimony on that issue I've prepared an
23 enlargement of Applicant's Exhibit 16 which is already in
24 evidence.

25 Your Honor, is this an acceptable place to put this?

1 THE COURT: Can you see?

2 MR. ZELENKA: That's fine.

3 THE COURT: Yes, ma'am. That's fine.

4 Q Okay. Dr. Cotton, could you briefly explain to us---

5 THE COURT: Dr. Word.

6 Q I'm sorry, Dr. Word. Dr. Word, could you please
7 explain for the court what is a DQ Alpha Polymarker test?

8 A So, a little bit of background -- in the late 80's,
9 early 90's the only DNA testing procedure available in
10 this country and actually internationally was called the
11 RFLP test. It required a lot of DNA. It required the DNA
12 to be in very good shape and it took quite a long time to
13 get test results. In the late 80's, early 90's a new test
14 system became available in the United States and
15 internationally that used a new technology called PCR or
16 polymerase chain reaction. P-O-L-Y-M-E-R-A-S-E.

17 This is a technology that allows for very small
18 amounts of DNA to be tested by focusing in on discrete
19 regions that are interested -- that people are interested
20 in testing and specifically copying those discrete regions
21 thereby making enough DNA to make some assessment on what
22 that DNA looks like from a particular sample. This is a
23 faster procedure and the bigger advantage is it allows us
24 to work on very tiny amounts of DNA and on DNA that's not
25 in very good shape; so, DNA that's gone through the

1 process of what's called degradation. It's broken down.
2 It's not very good DNA.

3 So, the very first test system that became available
4 in the United States was called a DQ Alpha test. It
5 looked at one particular region of the DNA; so at most any
6 individual could have two copies -- the copy they got from
7 their mother and the copy they got from their father and
8 it provided limited information regarding the genetic --
9 the genetic background of that individual; so what could
10 be done is an evidence sample from an unknown individual
11 could be tested, the types from that sample determined,
12 and then compare that to the types from a known
13 individual. If the known individual had different types
14 than the evidence, then, of course, they were excluded as
15 a possible biological contributor. If the known
16 individual had the identical results to that sample, then
17 that individual couldn't be excluded as a possible donor
18 and a statistical frequency would be provided to provide
19 some weight to what the meaning of that inclusion was and
20 generally using the DQ Alpha test alone anywhere from four
21 to 50 percent -- Well, maybe not that high, but four to
22 40 percent or so of the population was included with that
23 test; so it was an excellent test for excluding most
24 falsely-accused people, but an inclusion had limited
25 meaning.

1 Q Okay. Now where does the Polymarker part come in?

2 A So, a few years after that test came out a new test
3 came out called the PM -- capital P, capital M -- test
4 that started being called a Polymarker test. That tested
5 five additional regions in the DNA; so it provided more
6 exclusionary power. The advantage to this test was --
7 again, it was a PCR based test; so small amounts of DNA
8 could be examined. DNA that was in poor quality could be
9 examined, but unlike the DQ Alpha test it had less
10 discriminating power at each test; so the five different
11 regions of DNA that got tested had very limited
12 exclusionary capabilities, more on the order of the old
13 serological ABO blood testing that was done, but in
14 combination those six tests could provide some very
15 meaningful information in criminal cases and
16 investigations and clearly for exclusionary purposes.

17 Q Okay. Now, based on your review of the trial
18 testimony and the deposition testimony of Dr. Baird and
19 Lauren Crane is it your understanding that this chart was
20 shown to the jury as an exhibit at Mr. Simmons' trial?

21 A Yes.

22 Q And it was used to illustrate Ms. Crane's testimony?

23 A And Dr. Baird's, yes.

24 Q Now if I understand what you just said correctly
25 these first six columns are what are part of the DQ Alpha

1 Polymarker test; is that correct?

2 A Yes. The first five would be the Polymarker test.
3 The LDLR through GC. Those are the names of the five
4 regions of the DNA that get looked at with that particular
5 test system and then the last one actually is DQ Alpha
6 alone and that's a separate test system, but collectively,
7 though, six make up the DQPM test.

8 Q So if I were to label these first 6 columns DQ Alpha
9 and Polymarker that would be correct?

10 A That's correct.

11 Q Okay. We'll come back to that. Now in order to do
12 this test you have to extract the DNA from the evidentiary
13 samples; is that right?

14 A That's correct. That's the first step of any DNA
15 testing process.

16 Q Can you explain how that works?

17 A I can. The extraction process varies depending upon
18 the type of sample that's being tested. The basic
19 procedure is to take the sample, put it in to some type of
20 solution that's going to cause the cells to break open.
21 Commonly in crime labs and particularly at this time one
22 of the major procedures used was to put it in with a
23 detergent and some proteins that help break open the cell
24 membrane to release that DNA out of the cell so it can be
25 tested. Then there's several steps that help clean up,

1 get rid of the cell debris, clean up the DNA so it's
2 available to go into the actual DNA testing step.

3 That basic procedure would be used on blood stains,
4 saliva stains, many other types of, you know, materials
5 that are collected that would have those types of
6 biological samples on it. However, in cases where sperm
7 had been identified or there is a high probability that
8 sperm are present, there is suspected semen in a sample, a
9 slightly modified extraction procedure would get used and
10 it's called the differential lysis -- L-Y-S-I-S --
11 procedure and this procedure is a little more complicated.
12 It uses the same basic process; however, it's broken into
13 several steps.

14 Because the sperm had holding the sperm DNA is
15 structurally very strong it could be separated away from
16 any other cellular components that might be on a sample
17 such as a vaginal swab where we expect to see lots of
18 cells from the female on that sample mixed with any sperm
19 that were present in semen deposited in the vaginal
20 cavity. We could break open the vaginal cells from the
21 epithelial cells using this procedure -- excuse me -- take
22 that -- the DNA off of the sample from that and we call
23 that -- it's called by different names: The non-sperm
24 fraction, the female fraction, or epithelial fraction.
25 Different labs use different terminology, but the idea is

1 that we have a preferential enrichment for the epithelial
2 cell component of that sample which in the case of a
3 vaginal swab would be largely from the female.

4 We can then collect -- and I we; this is the whole
5 international community. This is done in every
6 laboratory. The sperm cells are then collected, washed,
7 and then broken open with a stronger procedure that then
8 releases the sperm DNA and we can collect that DNA
9 separately in another tube and hopefully have the DNA
10 enriched for the male component of that sample; so at the
11 end of that testing we should have a non-sperm fraction
12 which we hope is enriched for DNA from the epithelial
13 cells or the female and we should have a second tube of
14 DNA that is hopefully enriched for the male component for
15 any sperm that were deposited on that sample.

16 Q Okay. So the idea is that you do this once with a
17 weaker solution that's supposed to break open the female
18 cells and then you do it again with a harder solution
19 because the sperm cells are supposed to be more resilient
20 and that's supposed to give you more of the male cells?

21 A That's correct.

22 Q Does that process work perfectly?

23 A It's not 100 percent. I mean, ideally the goal is to
24 have all of the female DNA in the first fraction and all
25 of the male DNA in the sperm fraction. Routinely what we

1 see -- and it varies from case to case -- is occasionally
2 there is some of the male component in the epithelial cell
3 fraction and that can be because there's white blood cells
4 present in the semen or perhaps some of the sperm break
5 open early, but we can sometimes see the male component in
6 the non-sperm or epithelial cell fraction.

7 In the sperm cell fraction if there is a small number
8 of sperm it is very common to also see a significant
9 amount of the female DNA that has carried over into that
10 sperm cell fraction; so it doesn't mean that the female
11 had sperm. It just means that in this enrichment process
12 we were not able to clean up the sperm entirely and get
13 rid of all the female DNA.

14 Q And so if that happens what you have is a mixture?

15 A That's correct. Very commonly.

16 Q And you told us that the DQ Alpha Polymarker tests
17 six different genetic locations?

18 A That's correct.

19 Q Is that the right way to describe that? How does
20 that compare to the type of DNA testing that's done today?

21 A It's very similar in the fact that they're all
22 PCR-based tests; so you can work with small amounts of
23 DNA, but the major two differences are that today
24 laboratories routinely look at 13, 15, or more locations
25 and the discrimination power or the ability to

1 differentiate individuals is much stronger at each
2 location with the various tests that we're using today as
3 opposed to the power of the tests that were used back in
4 the early 90's.

5 Q Okay. And you may have already explained this, but
6 the DQ Alpha Polymarker Test was designed as primarily as
7 an exclusionary test; is that correct?

8 A Well, in theory all of these types of testing are
9 basically exclusionary tests. The only way they have
10 power as an inclusionary test is once you test so many
11 regions and have so much information you basically exclude
12 the rest of the world except one individual, but all of
13 the tests conceptually are all exclusionary tests. The
14 failure to exclude someone is the only way someone is
15 included as a possible source.

16 Q Okay. Let's talk just a little bit about the CTT
17 test. Which parts on the chart represent the CTT test?

18 A The last three columns you'll see the first initial
19 as a C, a T, and a T. That's what the abbreviation for
20 testing those three regions of DNA. Those are three of
21 the regions that we currently test using the new
22 commonly-used current testing procedures. These were the
23 first tests available using those systems in the late
24 90's.

25 Q So the current tests would test these three plus 10

1 or 12 more; is that right?

2 A At least, yes.

3 Q Is the CTT test also a PCR test?

4 A Yes, it is.

5 Q And that works the same way that you've already
6 described where you amplify the DNA to get more of it that
7 you can test?

8 A That's correct.

9 Q Now, you've reviewed the trial testimony of
10 Ms. Lauren Crane and Dr. Baird who are employees at
11 Lifecodes and Ms. Crane was the lab technician who did the
12 DNA testing in this case. Do you recall her testimony
13 that she testified she tested Mr. Simmons' blood at nine
14 genetic locations and the result was that he could not be
15 excluded as a contributor to the mixture from the
16 evidentiary samples at all nine locations?

17 A Yes.

18 Q Was that testimony true?

19 A It's true, but it's not accurate.

20 Q Okay. What do you mean by that?

21 A He can't be excluded at any of the nine locations;
22 however, the information that's available there is really
23 only three or four regions of the DNA that have any
24 information that provides anything for including or
25 excluding. The bulk of the test results they obtained at

1 Lifecodes are all consistent with the individual
2 identified as the victim in this particular case; so there
3 is very limited information available for inclusionary or
4 exclusionary purposes.

5 Q Okay. And we're going to break that down in a little
6 more detail, but this chart we've already explained was
7 used to illustrate Ms. Crane and Dr. Baird's testimony at
8 trial?

9 A That's right.

10 Q Is all of the data on this chart correct?

11 A No.

12 Q Okay. Could you explain what parts are not correct?
13 If you want to just go line by line I'll mark it as you
14 talk about it.

15 A Basically, all the CTT results presented in the table
16 are incorrect or a large portion of it. I am going to
17 refer to the table that I made which is in my supplemental
18 affidavit to assist me.

19 Q Okay. If I could hand you what's been marked
20 Plaintiff's Exhibit D, is that a copy of the table that
21 you're referring to?

22 A Yes, it is. So I'll refer to D then rather than my
23 notes.

24 Q That's fine.

25 A Should I proceed?

1 THE COURT: Yes, ma'am.

2 THE WITNESS: So, for the top row which gives the
3 results for the individual identified as the victim in
4 this case Lilly Bell Boyd a blood sample was provided.
5 The DQ Alpha PM results are correct. CTT testing was done
6 for her sample, although they're not provided in the
7 chart; so those results should be under C a 10 and a 12
8 and that means she inherited a 10 from mother or father
9 and she inherited a 12 from the other parent; so she has
10 two different copies designated with these numerical
11 designations at that location. At TPOX she has a 9 and
12 that means she inherited a 9 from her mother and her
13 father; so it could be a 9, 9. She has two identical
14 copies, and then at the last location TH01 she had an 8.
15 Again, an 8 from mom and dad.

16 Q Okay. Now before you move to the next line -- so, if
17 I understand what you're saying, this is her known sample.
18 This is not an evidentiary sample from the crime scene?

19 A That's correct. It was based on the notes provided
20 as a blood sample from her presumably from her body as a
21 known reference from her.

22 Q And Lifecodes tested this sample and got these
23 results. Did they ever report those results to anyone?

24 A Not the CTT results. The DQ Alpha PM results were
25 reporting.

1 Q What about the testing on Mr. Simmons' known sample?
2 Is that the text line?

3 A Yes, it is.

4 Q Are those results correct?

5 A They're all correct except for the CSF column and
6 that should be a 10, 12.

7 Q Okay. And those results were reported to the
8 defense; is that right?

9 A That's correct.

10 THE COURT: Ten, 11 was reported; not the 10, 12. Is
11 that what you're saying?

12 MS. PAAVOLA: That's right, Your Honor.

13 I can hand you what's already been entered as State's
14 Exhibit 2. Do you recognize this as the report that
15 Lifecodes did issue regarding the CTT results for
16 Mr. Simmons?

17 THE WITNESS: Yes, and to answer your question they
18 did report the 10, 12 in their report. It is just
19 incorrectly entered on the chart that was presented in
20 court where it was presented as a 10, 11.

21 Q Okay. Now the next line is an evidentiary sample
22 from the crime scene; is that right?

23 A That's correct.

24 Q Are the results that are reported for the male
25 fraction for that sample correct?

1 A They're correct for the DQPM results; however,
2 they're incorrect for the CTT results. No testing was
3 done on that sample for the CTT testing; so all of those
4 results should be deleted and not done should be recorded.

5 Q So this sample was never tested?

6 A With that test, that's correct.

7 Q But it was reported to the jury that it was tested
8 and these results were obtained?

9 A To the best of my knowledge, yes.

10 Q And why wasn't this sample tested?

11 A The notes indicate that they had run out; that there
12 was no DNA left for further testing.

13 Q Okay. What about the next line on the chart?

14 A The next line indicates one of the non-sperm female
15 epithelial cell fractions for the sample that's right
16 above it. Remember, I said it split into two fractions;
17 so the sperm fraction had been reported in the line we
18 just corrected and this would be the corresponding
19 non-sperm cell fraction which they call a female fraction.
20 This is correct, although there is a minor typo under the
21 DQ Alpha results. The comma should be a slash.

22 Q What does the slash indicate?

23 A It indicates that there is a typing result that's a
24 4.2 or a 4.3. With this testing procedure we can't tell
25 it apart; so the slash just indicates it's either or and

1 it's the location from either the mother -- I'm sorry, the
2 test result from either the mother or the father at that
3 location and you can see that they've used the slash
4 through the rest of it and it was just a minor typo at
5 that part.

6 Q Okay. What about the CTT testing on this sample?

7 A That sample was tested; however, there were no test
8 results; so those three lines -- columns -- should say no
9 results obtained.

10 Q Okay. Now, what about the next line which says two
11 vaginal swabs from SLED male fraction?

12 A So this is the male fraction from a second vaginal
13 swab. The results for the DQA/PM testing are correct
14 according to their report; however, when I looked at the
15 original Polaroid films documenting the data for that
16 sample in the laboratory in Dallas, I disagree that the --
17 under the fourth column over that says D7S8, I don't think
18 that the B in parenthesis should have been interpreted and
19 I'll tell you why in a second and then under GC I don't
20 think that the AC in parentheses should have been
21 interpreted and then under the DQA result I think the 1.1
22 should be in parentheses indicating that that is a weaker
23 result.

24 Q The parentheses throughout this chart indicate that
25 those results are weaker than the other results?

1 A That's correct.

2 Q Why is it that you don't believe those results should
3 be interpreted on that sample?

4 A So, a little bit of background on this test system --
5 the way these test results are generated and interpreted
6 is there are a series of DNA spots along a white strip and
7 each of those different spots corresponds to the different
8 possible test results and when a DNA sample is -- contains
9 the corresponding result the DNA hooks on to the DNA on
10 that strip and through some chemical processes there is a
11 dot that turns blue in color; so we can determine that
12 sample A has an LDLRA result, for instance, because we get
13 a bright blue spot and if there is no spot at B it means
14 there is no B result.

15 Because it's a subjective test and you're looking at
16 the intensity of these blue dots, there are what are
17 called control dots also on these strips and both of these
18 test systems -- and both, I mean the DQA and the PM
19 system -- have a control dot on the strip. That dot
20 should be the faintest dot for any data that are
21 interpreted; so the idea is any of the blue dots that are
22 similar in intensity or darker could or should be
23 interpreted. Dots that are below that run the risk that
24 there is potential for missing information and that those
25 results should not be relied upon as a complete result and

1 should not be interpreted.

2 They might be reported. Some labs did report them.
3 I believe we did but we wouldn't interpret them because
4 there are issues involved with that interpretation. So
5 when I looked at the test results for the DQ and the PM in
6 this particular case off of the photographs my opinion is
7 that the B under D7 and the AC under GC were below the
8 intensity of those control dots and should not have been
9 interpreted.

10 Q And---

11 A And then the 1.1 dot was a fainter intensity than the
12 other dots and should be interpreted, but it should be in
13 parentheses to indicate that intensity difference to keep
14 in line with the rest of their reporting procedures.

15 Q Okay. Now, what about the CTT testing on this
16 sample? Are the results that are reported on the chart
17 that was shown to the jury correct?

18 A None of them are correct. No.

19 Q What should they be?

20 A The first column for CSF should be a 10,12. The TPOX
21 column should be a 9 and the TH01 column should be an 8.

22 Q Okay. And what about this last sample? Was that
23 sample tested with CTT?

24 A Yes, it was.

25 Q What are the results of that testing?

1 A The same as the sample above: A 10,12; a 9; and an
2 8.

3 Q Okay. In its non-corrected form this chart told the
4 jury that with the CTT test results Mr. Simmons' known
5 standard was the same as the evidence collected on the
6 evidentiary samples -- these two that we have now marked
7 out?

8 A Both sperm fractions; that's correct.

9 Q Is that true that Mr. Simmons' known sample matched
10 the evidentiary samples that were tested in the CTT?

11 A It is not correct.

12 Q Is Mr. Simmons incriminated in any way by the CTT
13 testing results?

14 A Not from those results, no. No way.

15 Q What do the test results indicate?

16 A Thank you. They're all consistent with the results
17 that were obtained from Lilly Boyd; so all of the results
18 for CTT that were obtained match with her testing results
19 which is consistent with what we saw with the DQPM that
20 there is a significant amount of her DNA in both fractions
21 from the samples.

22 Q Now these conclusions -- these corrections that
23 you've made to the chart, what is that information based
24 on? Where are you getting that information?

25 A It's based on looking at, first, the copies and then

1 the original film data that the individuals at Lifecodes
2 would have relied on for testing. When I went to Dallas I
3 actually looked at the piece of film that they had used
4 for their interpretation and independently interpreted it.

5 Q Is there any way to tell from Lifecodes' reporting --
6 State's Exhibit 2 that I showed you about the CTT test
7 results -- that any of these corrections that you've made
8 could have been known from their reporting?

9 A No.

10 Q Is there any indication from the test results that
11 you've looked at that the CTT test indicate a mixture of
12 two or more persons' DNA?

13 A That's hard to answer. There are some -- one of the
14 problems with the CTT test is it can have a lot of
15 background results and the results that they -- Lifecodes
16 Corporation -- obtained were very overexposed and so in
17 addition to these major results we can see there's a lot
18 of background results and we're not able to tell whether
19 that's DNA from a second minor contributor or whether it's
20 just junk from the testing procedure that we can't
21 identify. So, it could be a mixture with a very faint
22 minor contributor. We can't tell. There is too much
23 background information there.

24 Q Did Lifecodes do any additional testing on these
25 samples after the CTT test was run?

1 A Yes.

2 Q Can you explain what the gender-typing test is?

3 A A test came out looking at a particular region of the
4 DNA called the amelogenin locus -- A-M-E-L-O-G-E-N-I-N --
5 and this allowed us to determine the gender of the donor
6 of the DNA. Females have two X-chromosomes: One they
7 inherit from mom and one from dad; whereas males have an
8 X-chromosome they got from their mother and a Y-chromosome
9 that each male inherits from their father; so with this
10 test we can look and see whether the DNA sample had only
11 an X result or an X and Y indicating that DNA from a male
12 was present and that was done on three of the samples in
13 this case or three of the fractions -- DNA fractions in
14 this case.

15 Q So after the CTT test results were completed three of
16 these fractions were tested with the gender-typing test.
17 What were those results?

18 A Only X was observed.

19 Q Which samples were tested with the gender-typing test
20 result?

21 A The two -- the last three columns -- the last three
22 rows. The two female fractions and then the one male
23 fraction. Let me confirm that, but I am pretty sure
24 that's right. Yes, the last four horizontal rows were the
25 ones that the amelogenin gender-typing test was performed

1 on with only a very prominent X result being observed.

2 Q For these last four rows?

3 A Last three.

4 Q The last three. And, so, in order to indicate that I
5 should write an X out to the side of these three?

6 A Yes, please.

7 Q So what does that mean?

8 A What that means is there's no indication of any
9 significant amount of male DNA in any of those three DNA
10 extracts.

11 Q Okay. So if I understand this, the results of CTT
12 indicate that DNA that's consistent only with the victim's
13 DNA?

14 A That's correct.

15 Q And the gender-typing test results indicate that only
16 female DNA is located in the sample?

17 A That's correct.

18 Q How is it possible -- Are these samples that were
19 tested with CTT the same samples that were tested with the
20 DQ Alpha Polymarker test?

21 A To the best of my knowledge there is no indication in
22 the notes that they took another swab and did a different
23 second extraction. The fact that for one of the samples
24 they actually state we ran out of DNA and that's why they
25 couldn't do further testing strongly suggests to me that

1 they're working with the exact same tube of DNA which
2 would be the right thing to do in this case.

3 Q How would it be possible to have what is reported as
4 a mixture with the DQ Alpha Polymarker test results but
5 not have a mixture and no male DNA with the CTT test on
6 the same samples?

7 A There are two basic explanations that I can come up
8 with. One is that once the DNA was isolated and went down
9 the different testing procedures that somehow the DQPM
10 test sample got contaminated with DNA from someone else
11 and that would lead to the different results that
12 originally there was only DNA from Ms. Boyd present. The
13 second possibility is that although in my experience these
14 test systems work very similar to each other and should
15 give very corresponding results that somehow there is a
16 slight technical difference in the minor contributor's DNA
17 was only readily apparent from the DQPM testing and for
18 unexplained reasons was not readily apparent with the CTT
19 or amelogenin testing.

20 Q Okay. Now when we've been referring to the male
21 fraction or sometimes it's called the sperm fraction, is
22 it -- is it called that -- Why is it called male or sperm
23 fraction?

24 A It's called that based on that differential lysis
25 procedure that I described earlier. It's the fraction

1 where we expect the DNA from the sperm donor to end up in
2 when we do that extraction procedure.

3 Q So it's based on an assumption that when you do this
4 dual extraction procedure if sperm are present they will
5 be located in the second part?

6 A The DNA from them would be in that extract; that's
7 correct.

8 Q Is there any evidence in the Lifecodes file that
9 sperm was actually visualized in any of these samples?

10 A None that I could identify, no.

11 Q Now the gender-typing test results, were those ever
12 reported to the defense or anyone else?

13 A Not that I'm aware of, no.

14 Q Would it be acceptable in your field not to issue a
15 report about a test like that?

16 A It would not be.

17 Q And I think you've already explained that State's
18 Exhibit 2 is the only report that Lifecodes issued about
19 the CTT testing; is that correct?

20 A It's the only one that I see in any of their notes.

21 Q And that---

22 A In their case files.

23 Q And that report is for the results that they obtained
24 on Mr. Simmons' known sample?

25 A Only; correct.

1 Q Would it be acceptable in your field not to issue a
2 report about the CTT test results that they obtained on
3 the actual evidentiary samples?

4 A It would not in my opinion. It should -- all results
5 should always be reported.

6 Q Would it be acceptable not to report what test
7 results they obtained on the victim's known standard, the
8 CTT?

9 A Certainly not and particularly given the results that
10 they got that are consistent with her it would certainly
11 be appropriate that those be reported.

12 Q When Lifecodes conducted the extraction procedure in
13 this case did they extract other cases at the same time?

14 A Yes, they did.

15 Q Does that create any potential problem?

16 A It can. Yes.

17 Q Like what?

18 A There is a potential for cross contamination of DNA
19 from another sample into the test sample that's being
20 worked with.

21 Q Can you explain what is a reagent blank control?

22 A Certainly. One of the big risks of PCR testing
23 because it's such a sensitive test is that any small
24 amount of DNA coming from elsewhere could actually mask
25 the true results from a real case and in the very early

1 days of PCR testing in research laboratories many mistakes
2 were made because of that contamination issue and so a
3 very critical control was added in to the PCR testing
4 process called the reagent blank control and the idea of
5 that is that when the initial tubes are set up for testing
6 and additional tube is used and every chemical that goes
7 into the test tubes also goes into this reagent blank
8 tube; so all chemicals, all solutions, all reagents used
9 are being tested along side the actual test samples and
10 this is to verify that the chemicals used introduced by
11 the laboratory into the testing are free and clear of
12 human DNA.

13 We don't want to be mistakenly introducing DNA
14 through our test procedure; so that reagent blank control
15 follows the original samples all the way through the whole
16 DNA testing process from start to finish and the idea is
17 at the end of the testing there should be absolutely no
18 test results for that sample indicating that the solutions
19 were clean and free of human or detectable amounts of
20 human DNA. If, however, at the end of testing there are
21 results for that sample, it raises a big concern that
22 there are potential problems with the samples
23 correspondingly tested with it.

24 Q Now, Dr. Baird testified at trial that his lab used a
25 number of control processes. Based on your review of the

1 lab file, however, did Lifecodes use the reagent blank
2 control process?

3 A They did not.

4 Q And why is that significant?

5 A It's significant because that control was advised to
6 be used in every testing procedure I saw regarding PCR
7 testing and the use of these kits by the forensic
8 community. It was also recommended by the -- what's
9 called the TWGDAM -- T-W-G-D-A-M -- group which is a body
10 from the FBI, a committee that is called a Technical
11 Working Group of DNA Analysis Methods and they said you
12 basically needed to do the reagent blank control; so it's
13 been essentially a mandatory control in all forensic
14 testing from day one and it's my understanding that
15 Lifecodes for reasons unknown never did the reagent blank
16 control testing at any of their cases.

17 Q Now, Dr. Word, before we move on I'd like you to look
18 at exhibit -- Plaintiff's Exhibit D that you have there in
19 front of you and I would just ask you if that is identical
20 to what we have marked up here in court as you testified?

21 A With the exception of the X's being added on for the
22 gender typing I think it's identical.

23 Q If you would would you write the gender-typing test
24 results on that copy of the exhibits for purposes of the
25 record?

1 A Okay. Like on the chart I am putting an X to the
2 right side of the last three horizontal rows.

3 Q And, again, those are to indicate that the
4 gender-typing test results did not indicate any male DNA
5 in those tests?

6 A That's correct.

7 MS. PAAVOLA: Your Honor, we would move to admit
8 Plaintiff's Exhibit D.

9 MR. ZELENKA: I would have no objection.

10 THE COURT: No objection.

11 (WHEREUPON, Plaintiff's Exhibit No. D was admitted
12 into evidence.)

13 Q Now I would like to talk about Dr. Baird's -- the
14 statistical calculations that were used in trial in this
15 case and for that purpose I've brought an enlargement of
16 what's already been admitted as one page of Applicant's
17 Exhibit 13.

18 Okay. Dr. Word, at trial Dr. Baird was asked to
19 explain the statistical calculations that he testified to
20 in this case to explain the strength of the evidence that
21 Lifecodes had and he was specifically asked what
22 percentage of the Caucasian population would be excluded
23 as the donor of the semen in the male fragment of the
24 vaginal swabs taken from the victim's autopsy. Do you
25 recall that testimony?

1 A Yes, I do.

2 Q And his answer was one in over one billion. Is that
3 true?

4 A It is true that's what he testified to.

5 Q Is it a correct answer?

6 A It is absolutely not.

7 Q And he was also asked what is the probability of a
8 random chosen person unrelated to Kenneth Simmons having
9 the same genetic profile as the genetic profile found in
10 the semen from the evidentiary sample and his answer is
11 one in over 8 million. Do you recall that testimony?

12 A Yes, I do.

13 Q Was that testimony correct?

14 A His testimony was incorrect. It is correct that's
15 what he stated, but that's totally inappropriate response.

16 Q Okay. And why is that? Can you explain that to us?

17 A The frequency calculation that Dr. Baird provided
18 repeatedly in his testimony and in their report -- State's
19 Exhibit 2 -- is for Mr. Simmons' DNA profile. It's for
20 his single-source known sample. The question in this case
21 and the question that he was asked several times is what
22 can you tell us about the frequency of the non-victim DNA
23 that's showing up in these evidence samples and we only
24 have a very few results that are -- can be attributed to
25 someone other than the victim in this case; so his

1 response of giving Mr. Simmons' profile is a completely
2 wrong response to the question being asked.

3 Q Okay. Which results do we have that give us any
4 information about the non-victim genetic material from the
5 evidence?

6 A Can we go back to the first chart, please?

7 Q Yes.

8 A My opinion is that on the third row down the sperm
9 fraction, male fraction for the vaginal swab, the B under
10 the D7 which is in parentheses has to be from someone
11 other than Ms. Boyd. The AC under the GC column has to be
12 from someone other than Ms. Boyd, and then in the next
13 column the 1.1 result has to be from someone other than
14 Ms. Boyd; so only those four test results are inconsistent
15 with the DNA profile from Ms. Boyd and could be provided
16 by one or more other individuals.

17 Q Why do you say four? Are you referring to the
18 individual alleles?

19 A Yes. Three locations, four test results.

20 Q So the test result would be the B, the A, the C and
21 the 1.1? That's what you mean?

22 A Yes, ma'am.

23 Q Okay. And so instead of calculating the probability
24 of finding another person in the world unrelated to
25 Mr. Simmons who could have also contributed in a way

1 consistent with those four results, Dr. Baird calculated
2 the probability of finding another person genetically
3 identical to Mr. Simmons; is that right?

4 A That's correct.

5 Q Okay. And if we can go back to the other chart, can
6 you explain how he should have calculated it properly?

7 A Certainly.

8 Q What is the correct way to go about calculating
9 statistical -- the relevant statistical calculation in
10 this case?

11 A So if -- Can we go back to the first chart or we
12 could just maybe look at this.

13 THE COURT: I got it right here in my hand.

14 THE WITNESS: Okay. If we can refer to exhibit D.

15 Q Yes?

16 A Oh, no, sorry.

17 Q You're right. It is D.

18 A Okay. I'm sorry. I am thinking of another table.
19 Maybe could we write -- Could we make some additions to
20 this table --

21 Q Sure.

22 A -- across the bottom maybe in blue?

23 Q Whatever you'd like.

24 THE COURT: If she has blue. She may not have blue.

25 Q I'm good.

1 A At the LDLR location there are only two possible
2 results, an A or B.

3 Q Okay. Let me hand you these because I think this
4 will help. I am handing you -- these are documents that
5 you prepared -- Plaintiff's Exhibit E; is that right?

6 A Yes, many, many years ago.

7 Q Would these help you illustrate the point that you're
8 trying to make?

9 A Yes. Okay. So if you look at the first results
10 column, the LDLR there are only two possible types: An A
11 and a B and that's what I said early that these are good
12 because they're PCR-based tests but they're not very
13 discriminating; so in reality if you turn the page to the
14 second page because each of us only have two types, all of
15 us are going to be either an AA, AB, or BB person. That's
16 all the discrimination value that these samples -- this
17 test have at this location and you'll see that for all the
18 evidence an A and B was obtained; so everybody is
19 included. No one can be excluded. Everyone in this room
20 is a source -- a possible source at that location.

21 The same thing at GYPA -- A and B are the only two
22 possibilities and you'll see in the second column of
23 results everything was an A and a B; so, again, everyone
24 is included. Those two locations for this evidence has no
25 -- is no help to identifying who may have left DNA that

1 was collected on the vaginal swab samples. If you move to
2 the third column HBGG we do have three possible
3 combinations: An A, a B, or a C. If you turn to the
4 second page as a result there are six different
5 combinations that we can see in the population based on
6 the two combinations -- the A, the b, and the C.

7 So, in Exhibit D under HBGG we see an A and a C; so
8 anyone with a B is automatically excluded as a source.
9 So, we can eliminate three of these possibilities on the
10 second page of Exhibit E and if you go back to the other
11 chart under HBGG on the white line that is second from the
12 bottom -- go over four rows. Right there. Anyone with an
13 AA, an AC, or a CC could be included as a contributor to
14 that sample.

15 Q Now, could I stop you right there before you move on?
16 So, if I understand this right the first two genetic
17 locations that you've talked about no one in the world can
18 be excluded from as a possible contributor to those two
19 locations?

20 A That's correct.

21 Q But the statistical calculation that Dr. Baird used
22 is just the frequency of Mr. Simmons' known genotype at
23 those two locations?

24 A That's correct.

25 Q Does that calculation in any way relate to the

1 possibility of these other genotypes that are also not
2 excluded -- actually, everybody else in the entire world?

3 A No, not for the mixture that we saw and not for the
4 AB results that were seen --

5 Q Okay. And is that true---

6 A -- in the evidence.

7 Q -- throughout -- throughout this calculation?

8 A That's correct. On that green row there all of those
9 calculations are from Dr. Baird indicating---

10 Q This one -- the one that says single source
11 frequency?

12 A Right. That indicates the single source profile
13 results from Mr. Simmons' profile. It is not reflective
14 of any information obtained from the evidence samples in
15 this case.

16 Q So, for example, at this first genetic location LDLR,
17 Mr. Simmons is a B,B. He is not excluded and no one else
18 can be excluded, but this calculation that Dr. Baird used
19 is the frequency of occurrence of a B,B in the world
20 population; is that right?

21 A Right and that number is saying that -- the top
22 number is the Caucasian population. If you move the
23 decimal point over two it is saying 30 percent of the
24 Caucasian population is included and 61 percent of the
25 African-American population is included.

1 Q But---

2 A But that's for just the B,B, but in terms of the
3 evidence it should be one. Everyone is included. No one
4 can be excluded.

5 Q Okay. Thank you. Can you go ahead and continue and
6 explain the other locations?

7 A Okay. So we just talked about the HBGG that we can
8 eliminate anyone with a B, but if we look at the bottom
9 white row we still can include anyone that's an A,A an
10 A,C, or a C,C; so if we add up the frequency of those
11 types in the population, that's presented in the pink on
12 the bottom and we can see depending on the population 20
13 to 65 percent of the population could be included as a
14 potential contributor to those results.

15 Q Okay. What about the next genetic location?

16 THE COURT: Is the green what he testified to?

17 MS. PAAVOLA: Yes, sir.

18 THE COURT: .0066.

19 MS. PAAVOLA: Yes, Your Honor. The ultimate
20 calculation is the testimony; so one in over a billion in
21 the Caucasian population and one in 8 million in
22 African-American population was his testimony.

23 THE WITNESS: He didn't actually provide the
24 independent numbers, but the ultimate number. Those are
25 provided in his report; so we know how he calculated it.

1 If we move to the G -- Is that where I am? No, D7 --
2 D7S8. If we go back to Exhibit E, again, we see at this
3 location A and B are the only two possibilities and at
4 D7S8 for the two sperm fractions Lifecodes reported an A
5 and a B; so, again, everyone is included. That genetic
6 information there is not helpful, and, again, no
7 statistical calculation. Oh, sorry -- if the A and B were
8 of equal intensity everyone would be included and there's
9 -- the statistical frequency should be one; however,
10 because the B is in parentheses and it's fainter and
11 Ms. Boyd was an A only, it tells us that if we assume only
12 two contributors and if we assume that she is one of the
13 contributors that second contributor had to have a B. We
14 don't know whether that second person is a B,B person or
15 an a,b person; so in the white row under D7 you'll see
16 that an A,B and B,B is listed as who could potentially be
17 included and then below that the frequency calculation for
18 the A,B and the B,B is 60-some percent of the population.

19 Q Okay. What about location GC?

20 A So under GC in this situation because there's a dark
21 B and then a faint A,C we know assuming only a single
22 minor contributor that that person has to be an A,C
23 person.

24 THE COURT: Y'all agreed on that?

25 THE WITNESS: Yes. And so that would be the

1 statistical frequency. Now, if there is a possibility of
2 two minor DNA contributors that A and C don't have to go
3 together. They go together only if we assume there is one
4 minor contributor.

5 Q Okay. And what about the DQ Alpha Polymarker or DQ
6 Alpha?

7 A So that gets a little more complicated as a result of
8 a test issue. We do know that there is a 1.1 that can't
9 be accounted for by Ms. Boyd; so assuming one single
10 second contributor that person has to have a 1.1. One of
11 the possible test results during this testing is called a
12 1.2 and if we have a single source sample like they did
13 for Mr. Simmons we can detect that 1.2 and know that it's
14 there.

15 Unfortunately, one of the deficiencies of this test
16 is in a mixture situation we can't always know whether
17 that's 1.2 is present. The way the kit was manufactured
18 they couldn't figure out a way to make that work on
19 mixtures; so any time we have any one result in a mixture
20 situation we have to consider the possibility that a 1.2
21 may or may not be there and so it may not be there. We
22 don't have any way of knowing it. It may be there.
23 Again, we don't have a way of knowing it; so we have to
24 put that in to the statistical calculations and the
25 interpretation of who might be included as a possible

1 contributor.

2 Q So you're saying that --

3 A So---

4 Q -- if it is included this in the pink row at the
5 bottom is the correct statistical calculation?

6 A That's correct, adding in all of the other
7 possibilities based on Exhibit D.

8 Q If the 1.2 is not present at all Mr. Simmons is
9 absolutely excluded?

10 A That's correct.

11 Q Now, Dr. Baird also included results at the CTT
12 testing locations in his statistical calculation and you
13 did not. Why is that?

14 A Because there are no CTT results that are consistent.
15 Interpretable results that are consistent from Mr. Simmons
16 -- from the single sperm fraction that was tested or
17 either of the two female fractions; so there's -- there is
18 no data to provide any statistical calculation on.

19 Q Now, the calculation that you came up with is
20 actually slightly different than what's on this chart; is
21 that right?

22 A That's correct.

23 Q Can you explain why that is?

24 THE COURT: Well, what did you come up with? That
25 says one in 172 -- 172 what?

1 THE WITNESS: The chart says 172 and one in 419. I
2 did similar calculations. This is in my Exhibit B.

3 Q So, your affidavit?

4 A For the Caucasian I came up with one in 145.

5 THE COURT: What is 145? 145 people, 145 million?

6 THE WITNESS: One in 145 individuals. So, it's
7 comparable to the 172.

8 THE COURT: You're not adding zeros to it?

9 THE WITNESS: No zeros.

10 THE COURT: So yours is one in 145 people whereas
11 they testified one in 1.28 billion people?

12 MS. PAAVOLA: That's correct.

13 THE WITNESS: That's correct. And then in the
14 African-American population my calculation was one in 336.
15 The chart provided by another expert was one in 419; so,
16 again, very similar numbers.

17 Q So this chart was previously entered as Applicant's
18 Exhibit 13 through the testimony of Dr. Steve Lambert and
19 you've reviewed this chart; correct?

20 A Yes, I have.

21 Q However, your calculations are slightly different?

22 A That's correct.

23 Q Do you know why that might be?

24 A The numbers under the GC and DQA1 column are slightly
25 different than what I used, although we're basing it off

1 of the same thing; so there is either a rounding issue or
2 one of us read frequencies from a different set of
3 database information, but the numbers are essentially the
4 same. This is telling us that this is a very, very, very
5 common profile. The difference between one and a hundred
6 and one in 300 has no meaning in my opinion. They're
7 telling us that this is very, very common and any minor
8 difference between our numbers is irrelevant, really.

9 Q And in general when you do these calculations what do
10 they represent?

11 A They represent the question that was asked in court:
12 What is the frequency of the genetic information from the
13 potential sperm donor in this particular sample? What
14 information do we -- how common is the information, the
15 genetic information for an individual whose DNA is present
16 in this sample that is not Ms. Boyd or the secondary
17 contributor in the sperm fraction. There are many
18 different ways. It got asked many different ways
19 correctly in court.

20 Q Does the use of single-source statistics that
21 Dr. Baird used relate in any way to the correct answer to
22 that question?

23 A Not at all.

24 Q Was Dr. Baird's use of single-source statistics
25 appropriate in this case by the standards in your field?

1 A No.

2 Q Are you aware of any credible forensic scientist who
3 would agree with Dr. Baird that is it is appropriate to
4 use single-source statistics in this case?

5 A I am not.

6 Q Now, I have one final thing to ask you about which is
7 you already mentioned the assumption of only a single
8 perpetrator. In this case 26 approximately other suspects
9 were tested and excluded. Is that correct according to
10 your review of the file?

11 A I didn't re-review that. I think I may have put that
12 in one of my affidavits. A large number of individuals
13 were tested and I don't remember the specific number.

14 Q Based on the genetic information from the crime scene
15 is there any way to tell whether there's only one or
16 potentially more contributors other than Ms. Boyd?

17 A Well, we know there are at least two contributors
18 because we got a mixture. Other than that, we don't know
19 -- we can't specifically determine anything else. We can
20 make assumptions. We don't even know, in fact, that the
21 DNA from Ms. Boyd is there. We can make that assumption
22 based on the fact that it is a vaginal swab collected from
23 her body. It is reasonable to assume that the major
24 results we're seeing are hers, but we can't prove that
25 with this test.

1 Q And you also can't prove that there is only one
2 contributor?

3 A One additional contributor, that's correct.

4 Q If you do not assume only a single perpetrator what
5 would be the appropriate statistical calculations be?

6 A They would still be the one in 172 or one in 419, but
7 what we don't know is whether those results actually go
8 together -- whether the minor results link to one person
9 or can get assorted differently for different people; so
10 the statistics would still be the same.

11 Q Okay. If you don't assume a single perpetrator are
12 there other suspects who were tested and excluded who
13 should not be excluded absent the assumption of only a
14 single perpetrator?

15 A Yes. There are a number of other individuals whose
16 types would fit into those sperm fraction results.

17 Q In fact, if you considered the possibility of at
18 least two contributors in addition to the victim are there
19 a number of pairs in this other suspect group that was
20 excluded that could fully account for all of the alleles
21 on the vaginal swab taken from the victim's body?

22 A Yes.

23 Q Okay. Just to sort of sum up your testimony I
24 understand your saying the CTT test results should never
25 have been reported to the jury as somehow incriminating

1 and against Mr. Simmons; is that right?

2 A That's correct.

3 Q In addition to that, there's no evidence from the CTT
4 results anyway that there is a mixture of DNA at all?

5 A That's correct; not a clear indication.

6 Q And there is no -- there is no indication based on
7 the gender-typing test results that there is any male DNA
8 in those samples?

9 A That's correct.

10 Q Given that -- given those circumstances is it
11 possible that the DQ Alpha Polymarker test results may be
12 unreliable as well?

13 A It's possible. We don't know, but there is --
14 there's some suggestion of an inconsistency here.

15 Q All right. Dr. Word, do you know how many hours of
16 work you've devoted to this case?

17 A Many; a lot.

18 Q Have you been paid for any of that time?

19 A I have for some of it.

20 Q Is there a substantial portion of your work on this
21 case that you've not been paid for?

22 A That correct. There is.

23 Q Are you being paid now?

24 A I am not.

25 Q Do you personally know Dr. Baird?

1 A Oh, yes, I do. I have known him for over 20 years.

2 Q In fact, do you consider him a personal friend?

3 A I do.

4 Q Given those circumstances why were you willing to
5 continue to work on this case and testify with no
6 expectation of payment?

7 A I consider myself an advocate for the science and I'm
8 just overwhelmed at what was presented in this case at
9 trial. To me it just -- There were so many errors and it
10 was so inappropriately presented I felt that I had a huge
11 scientific and moral obligation to make that information
12 known. The testimony was incorrect. This chart is
13 totally incorrect. The jury was not provided with at all
14 a reasonable explanation of what was -- of what the DNA
15 data reflected in this case and I felt an obligation to
16 make that clear.

17 Q One moment, Your Honor. No further questions,
18 Dr. Word. Please answer any questions---

19 THE COURT: Let's take a little short, short break.

20 (Whereupon, a break was taken.)

21 CROSS-EXAMINATION

22 BY MR. ZELENKA:

23 Q Dr. Word, in 1997 and 1998 what was your professional
24 relationship with Dr. Baird or Lauren Crane? Did you have
25 any at that time?

1 A Perhaps. At one point Cellmark was owned by
2 Lifecodes Corporation and I can't remember -- I believe it
3 was during that period of time, and actually I was in
4 retrospect kind of surprised they did this test because I
5 thought our lab was doing all the forensic testing for
6 that corporation at that time. So, somewhere in the 90's
7 Lifecodes purchased our laboratory. However, we didn't
8 really have any interactions with the laboratory, but I
9 had known Mike Baird for many, many, many years,
10 frequently saw him at meetings. We've testified in court
11 several times together. Lauren I've met once or twice. I
12 don't know that I would recognize her now.

13 Q But to be clear while you were a lab director at
14 Cellmark during the similar time period you were not the
15 lab director over Michael Baird or over Lauren Crane and
16 you didn't validate their work at that particular time; is
17 that correct?

18 A That's correct. We had no relationship other than
19 being under the same corporate umbrella and didn't share
20 protocols or anything.

21 Q Okay. So you didn't set their protocol. You didn't
22 set their procedures?

23 A That's correct.

24 Q Okay. With respect to this chart in your prior
25 expert testimony do you prepare charts like this? And I

1 am referring to Applicant's Exhibit 16.

2 A I never prepared charts for court. I -- When I was
3 with Cellmark we always had a table of results for all of
4 our testing results. Now as a consultant if a table would
5 assist in my explanation of something I make tables. Do I
6 always make a table? No, but most of the time yes --

7 Q Okay.

8 A -- and certainly any time reporting any DNA testing
9 results it's appropriate to make a table.

10 Q Okay. Are you aware that this chart was not prepared
11 by any of the Lifecodes personnel?

12 A I've been informed of that, yes.

13 Q Okay. And that it was, in fact, prepared by
14 Solicitor Walter Bailey himself. Are you aware of that?

15 A I believe I heard that it was made by the attorney in
16 the case, but I don't know that.

17 Q Okay. And with respect to Mr. Simmons' blood on this
18 chart, line two, the information is accurate with the
19 correction that on the CTT that first test -- the
20 CSFIPO -- that should have been corrected to 10,12 which
21 is consistent with what Lifecodes had reported; is that
22 correct?

23 A In their report, yes, sir.

24 Q So other than that typo, that, in fact, reflects
25 Mr. Simmons' blood as you understand it based upon your

1 viewing of the material at Lifecodes or work at Cellmark?

2 A Yes, sir, that's correct.

3 Q Okay. Just to be clear, your opinion as expressed in
4 the report which you prepared and your supplemental report
5 does not reflect that Mr. Simmons is excluded as a
6 contributor to the infraction -- excuse me, the fractions
7 which were tested; isn't that correct?

8 A That's correct.

9 Q And, in fact, it's your opinion that Mr. Simmons
10 could be a contributor to this population and that that
11 contribution would have him being one in 149 or one in
12 336; is that correct? Or one in 336?

13 A I don't think I would state it quite the way you
14 stated it.

15 Q Sure.

16 A There is no evidence that I saw that can absolutely
17 exclude him. The frequency of any contributor -- not him
18 being a contributor, but any contributor -- would be the
19 one in several hundred number for those four alleles --
20 four types -- A-L-L-E-L-E-S -- I don't normally use that
21 word. The four types that we saw, that would be the
22 correct frequency. Yes, Mr. Simmons is included. I
23 suspect some of us in the room are also included. It is a
24 common set of information.

25 Q Common set of information for one in 149?

1 A Yes.

2 Q Which eliminates more than 99 percent of the
3 population?

4 A That's correct, but the 1 percent is still a large
5 number of people.

6 Q It is a large number of people. How about what's the
7 percentage of one in your 336? .002? Two tenths of a
8 percent?

9 A I'm sorry?

10 Q What is the percent of that population?

11 A That's included or excluded?

12 Q Excluded.

13 A Ninety-nine point something would be excluded.
14 Again, greater than 99.

15 Q That's a significant portion of people that are
16 excluded, too; isn't that correct?

17 A Certainly.

18 Q Now, in addition, when you were looking at this you
19 talked about certain material being viewed by you in
20 making your own subjective assessment as to what to place
21 on a particular chart. Isn't that correct?

22 A Yes, sir.

23 Q And is it true or is it possible that materials
24 degrade overtime? They may be sharper back in 1998 than
25 they are today. Have you seen degradation in materials

1 that you've studied and looked at from your own initial
2 study to much later studies?

3 A Certainly, with the old original Polaroid
4 documentation I have seen that deteriorate. My opinion
5 was the photographs that were in the Dallas laboratory
6 were of very good quality and for the CTT results these
7 are on x-ray films very similar to the old RFLP tests and
8 I have never seen those deteriorate if they've been stored
9 properly; so I think those were in really good shape to
10 the best of my knowledge.

11 Q Okay. And the manner you reported those, is that
12 consistent with the manner that Lauren Crane and Lifecodes
13 themselves have reported the results?

14 A I don't know how they would have reported the results
15 because they didn't give them for the CTT.

16 Q You don't know how they would have reported it?

17 A I don't.

18 Q Okay.

19 A They only reported Mr. Simmons. I don't know what
20 their policy was for presenting mixtures with a high
21 amount of background.

22 Q Okay. But there was a high amount of background on
23 those mixtures?

24 A Yes, sir.

25 Q Would you have viewed some analysts as finding that

1 they were inadequate to report?

2 A I'm sorry. I missed the first part of your question.

3 Q Would it surprise you that some analyst would view
4 those same matters and determine that they could not
5 effectively report that?

6 A For the background?

7 Q Yes.

8 A Yes. Oh, I think a lot of people would agree with
9 that.

10 Q But, again, that's a subjective test based upon your
11 viewing and your understanding of the data you're looking
12 at?

13 A That's correct.

14 Q Explain again -- I wasn't sure I was following the
15 reagent controls that you were describing --

16 A Uh-huh.

17 Q -- please explain that again.

18 A Certainly. During PCR testing there are three
19 critical controls that are generally always used, mandated
20 now, and highly recommended, you know, in every protocol
21 in the 90's. The first one is called a reagent blank
22 control or sometimes it's called an extraction control and
23 that's what I discussed earlier. That is a blank tube
24 that starts at the very, very beginning of the process
25 with the initial test cuttings from the evidence samples

1 and then separately would be -- there would be another one
2 processed with the standards, the known standards; so that
3 reagent blank control controls for all reagents, all
4 chemicals, all the steps in the process starting with DNA
5 extraction through all the many steps to generate the
6 results that we can then interpret and it's part of the
7 analyst's responsibility and the technical reviewer who
8 reviews that information and certainly anyone going to
9 court to check that those results are completely negative.

10 Now, the extraction is the first step of the process
11 where you take the cutting and you extract the DNA and
12 then the second step would be the copying or the
13 amplification step or the actual PCR step. There are two
14 more controls that come into play at that step and they're
15 called amplification controls. One is a positive control.
16 One is a negative control. The negative control is
17 virtually identical to the reagent blank control. Again,
18 it's another blank tube introduced at that step that
19 follows through and it controls for the chemicals used
20 from the amplification step on.

21 The positive control which was also introduced at
22 that amplification step is where a known DNA is introduced
23 and it's tested and we check that at the end to verify
24 that the correct results were obtained; so that shows us
25 that the amplification and typing steps all worked

1 correctly.

2 Q Okay.

3 A And those were done by Lifecodes and Michael Baird
4 did testify to the presence of those two controls.

5 Q Okay. So they did do some controls?

6 A They did those two. That's correct.

7 Q You just disagree because there is another one that
8 they could or should have also done?

9 A That's correct.

10 Q Okay. Does the fact that that reagent control not
11 being done -- does that automatically change any of the
12 results that were done on this particular chart?

13 A It doesn't change the results, but it certainly
14 brings in to question the possibility in the case of a
15 mixture that the results may be due to contamination as
16 opposed to a true result. We don't -- It's a critical
17 control to do. It's there for one of the most difficult
18 steps of the testing process; so without it we don't know
19 whether results are reliable or not. It is a good control
20 to do.

21 Q It is a good control to do?

22 A Yes, sir.

23 Q Okay. With respect to the results on the CTT
24 testing, they were all that were done -- other than
25 Mr. Simmons' own blood, they were consistent with the

1 victim in this case; right?

2 A That's my opinion, yes.

3 Q And that result being consistent with the victim
4 still doesn't necessarily eliminate Mr. Simmons as being a
5 contributor to the fractions that were tested, also.
6 Isn't that true?

7 A Well, it doesn't eliminate him, but there is no
8 information consistent with a second person available in
9 those fractions.

10 Q But I thought you pointed out on the third column the
11 vaginal swab and saline from MEOC, the male fraction, that
12 that included data, the B, the A,C, and the 1.1 that is
13 not consistent with the victim?

14 A I'm sorry. I misunderstood your question. I thought
15 you were referring only to the CTT.

16 Q No.

17 A So, for the CTT that was -- my answer was in response
18 to understanding you were asking about the CTT results;
19 that there are no results. For the four results that are
20 from one or more minor contributors, they are consistent
21 with Mr. Simmons's results and he, therefore, cannot be
22 excluded.

23 Q Okay. And the fact that on the DQ Alpha that it
24 doesn't include a 1.2, that doesn't exclude Simmons from
25 that because 1.2 is not tested; isn't that correct?

1 A It's not that it doesn't include it. We don't have a
2 way to identify whether it's there or not. It's --
3 Unfortunately, it's a defect in the test system as it was
4 put together.

5 Q Okay. But, again, the fact that there is not a 1.2
6 there doesn't mean that that's -- couldn't also be
7 Mr. Simmons in that group; correct?

8 A That's correct. Actually, I -- Let me rephrase that.

9 Q Okay.

10 A You said if it's not there then he would be excluded.
11 The fact that it's not on the chart and we don't know
12 definitively that it is there we -- there is just no
13 information to include or exclude. If somehow we knew it
14 wasn't there, he would be excluded.

15 Q Okay. I understand, but that test doesn't test for
16 that; correct?

17 A That test does not provide that information when you
18 have a mixture, unfortunately.

19 Q Okay. Now in 1998 and 1999 was there other testing
20 in the field other than the DQ Alpha, the PM, and the CTT
21 test that was routinely used in forensic testing of DNA?

22 A Probably not routinely. There were some other tests
23 available and the current tests that are now being used
24 were just coming on board in many laboratories at that
25 time.

1 Q Okay.

2 A But this would be the standard test that the majority
3 of the labs in the world were using at that time.

4 Q Now, with respect to the gender testing that you said
5 where the X-chromosomes were found and no Y evident
6 suggested that were more likely just a sample from a
7 female; is that correct?

8 A That would be my opinion, yes.

9 Q But based upon the testing it would not necessarily
10 eliminate the fact that there could be a male in that
11 test?

12 A At a very low level that was below the level of the
13 detection of that test system, yes.

14 Q Okay. Explain that again because I wasn't too sure I
15 was following it from my very lay-person perspective on
16 this.

17 A Like with many things the problem is we can never
18 prove a negative result. We can't prove someone's DNA is
19 not in something. All we can say is that to the level of
20 our detection capabilities we can't see that person's DNA.
21 The detection capabilities vary from test system to test
22 system. In our hands in our laboratory the amelogenin
23 gender-typing test is quite sensitive. It would have been
24 my expectation that if the DQPM results were, in fact,
25 from a male that there should have been some indication

1 reasonably observable of the Y, at least using the system
2 we used in our laboratory.

3 To my knowledge there was only one
4 commercially-available test kit for that at that time and
5 so I am assuming that's what Lifecodes was using, but
6 perhaps they had some different tests that worked
7 differently, but it would have been my expectation that we
8 would see that Y and the fact that we're not means either
9 there is no male DNA there or it is at a level below the
10 capabilities of that test kit to recognize it.

11 Q In your report you described your attempt to
12 determine the correctness of a statement in the Lifecodes
13 report concerning the presence of sperm in the material.
14 Do you recall that?

15 A Yes, sir.

16 Q Okay. Explain what your response was in your report
17 and why.

18 A The report---

19 Q I am referring to page six and seven of your report.

20 A Of my supplemental report?

21 Q No, your original report -- May 12 -- March 12, 2011
22 report which I believe you have in front of you.

23 A The initial report from Lifecodes had a really odd
24 statement. Quoting from my affidavit which I hope is
25 correct from the report, "Data suggests that sperm was

1 visualized in the samples," and it lists these two vaginal
2 swab samples in addition to another one. I have never
3 heard anyone report that. You either saw sperm when you
4 did a slide identification or you didn't. To say data
5 suggests that sperm was visualized is a very odd way of
6 stating that and I don't actually know what that means.

7 I would think if they had done the normal routine
8 slide microscopic examination they would say sperm were
9 observed. That's what most people report; so this
10 statement is odd. I don't understand what it means.
11 Through the copies of the notes that I had available that
12 I originally looked at there was some very poor copies of
13 copies of photographs that were in no way possible for me
14 to independently determine whether sperm were present in
15 those photographs.

16 There is no documentation in the notes that I could
17 see anywhere recording sperm were observed, how many,
18 where, on what samples; so I was hoping that when I looked
19 at the original case file that I might have some good
20 quality original photographs, and, unfortunately, there --
21 I was unable to find any original photographs for the
22 sperm -- well, pictures of the sperm slides and the ones
23 that were there were poorly documented for what sample
24 they even went to; so there is no independent way that I'm
25 aware of to confirm that, in fact, sperm were present on

1 the samples as detected at Lifecodes by any method.

2 Q In 1998 and 1999 how would you -- what numbers would
3 you have utilized for the population data for the
4 existence of Mr. Simmons being a possible contributor to
5 this data?

6 A I would have done the calculations the same way that
7 it was done in the second chart that we presented or in my
8 affidavit. We had our own individual database; so the
9 frequencies probably would have been a little bit
10 different, but they still would have come out one in the
11 low hundreds in all likelihood using our database, but the
12 calculation process would have been the same.

13 Q Okay. Where did you get your database information
14 from?

15 A We had our own database that we generated at Cellmark
16 and had tested with all these test systems and had
17 independently reviewed by population geneticists.

18 Q Okay. And Mr. Lamberg apparently used different
19 numbers; is that correct?

20 A He---

21 Q Because he came up with different data.

22 A Well, he used the FBI database which I also used for
23 this calculation.

24 Q Okay. But your numbers were different?

25 A Slightly, yes.

1 Q Okay. But, still, in the 99 percent category of
2 excluding part of the population; correct?

3 A That's correct.

4 Q Did you discuss or have you discussed with Mr. Baird
5 his population calculation that he gave in this particular
6 proceeding?

7 A I have not.

8 Q Have you discussed with Dr. Baird his testimony
9 related to the failure to use the reagent blank testing?

10 A Not in reference to this case. I do think that
11 sometimes years ago I discussed it with him when I
12 discovered that they were not using it and expressed a
13 concern that I thought it should be used, but many years
14 ago -- certainly, not in reference to this case.

15 Q Okay. And similarly with Lauren Crane, have you
16 discussed any of your conclusions with her directly?

17 A I have not.

18 Q Court's indulgence. Let me just ask a couple of
19 questions. About the fifth row down Applicant's
20 Exhibit 16 where in the D7S8 you struck through the B.
21 Lifecodes reported in parentheses a B which I understand
22 from your testimony meant that it was of lesser density;
23 is that correct?

24 A Lesser intensity, that's correct.

25 Q Lesser intensity and subjectively you looked at it

1 and found it to be of a lesser intensity than you would
2 have even reported it as being of a lesser intensity; is
3 that correct?

4 A Yea. Actually, I do agree it's of lesser intensity
5 in relation---

6 THE COURT: To the point you didn't report it or
7 would not have reported it?

8 THE WITNESS: Well, it is fainter than the A; so the
9 parentheses is correct, but based on the photograph that I
10 looked at it is also lower than the control dot and so the
11 recommendations of the test manufacturer were that those
12 results shouldn't have been interpreted. You could maybe
13 report them, but maybe not interpret them.

14 Q Okay.

15 A Now, that is looking off of the photograph. I should
16 make it clear which I forgot to mention earlier the best
17 way to read these strips is when they're wet as soon as
18 they're originally developed. Generally, the Polaroid
19 results are a pretty exact replication of the visual
20 results and in my experience with this amount of
21 difference I wouldn't have expected it to be different
22 from the wet, but it's possible that when they originally
23 read these results that these results were equal to the
24 control dots.

25 Q Okay. And a similar thing on the GC testing -- they

1 reported in parentheses A,C and you struck through that
2 response, and, again, why was that?

3 A The same thing. The A,C is fainter than the B; so
4 the parentheses are correct, but in my opinion looking at
5 the photographic results the A,C was fainter than the
6 control dots and shouldn't have been interpreted.

7 Q Okay. And on the DQ Alpha you put in parentheses on
8 that one the 1.1. What's the reasoning behind that?

9 A Again, because in comparison to the two and the four
10 dot, it's fainter.

11 Q Okay.

12 A But it above the control dots and so it's appropriate
13 to interpret that one.

14 Q Okay. When you did your population calculations did
15 you include or exclude those two matters in the D7S8 and
16 the GC from your interpretation?

17 A I included them because I -- based on their report
18 the two fractions were identical and so I gave the one
19 statistic which would work for both of them. Having later
20 seen the original films I would now say that my statistics
21 would be just for the sample I think it is 84 -- the male
22 fraction that's the third row down because all that would
23 be left on the bottom male fraction would just be the 1.1.

24 Q Okay. And you would agree that on the fifth line
25 down the matters that you revised were those that were

1 consistent with the defendant's blood type?

2 A That's correct.

3 Q Blood type; correct?

4 A They are -- Well, let me modify that. They are
5 consistent, but if they shouldn't be interpreted I
6 shouldn't be stating that opinion. If you assume they're
7 correct and adequate results, then that would be my
8 opinion and it's based off of the other male fraction.

9 Q But they weren't the material that was consistent --
10 uniquely consistent with the victim's blood type; correct?

11 A That's correct.

12 Q And you testified that it's not surprising to you
13 where the material came from that matters consistent with
14 the victim's blood type might be dominant or more dense,
15 more present. I don't know exactly the term of art that
16 should be used, but that wouldn't surprise you as an
17 examiner; correct?

18 A That does not, particularly when a very small number
19 of sperm were observed on the sample. Unfortunately, we
20 don't know how many were observed, but if there were sperm
21 present based on these results my guess is it's a very
22 small number based on past experience.

23 Q All right. Thank you, Doctor. I appreciate it.

24 THE COURT: Anything on redirect?

25 MS. PAAVOLA: Yes, briefly, Your Honor.

REDIRECT EXAMINATION

1
2 BY MS. PAAVOLA:

3 Q Dr. Word, Mr. Zelenka asked you about previous
4 testimony entered in this proceeding that Lifecodes did
5 not actually prepare this chart; that the Solicitor Walter
6 Bailey prepared the chart based on information they
7 provided to him. Do you recall Ms. Crane's testimony from
8 trial when she was asked if she had previously seen the
9 chart when she said not recently, no?

10 A I do.

11 Q And do you recall when you reviewed her deposition
12 testimony that she testified that what she meant by that
13 was that she actually had never seen the chart and she
14 just read it in court because she assumed it was correct?

15 A I believe that's right, yes.

16 Q If either of those things were true -- either she
17 never saw the chart or she hadn't reviewed it recently --
18 would it be appropriate by the standards in your field to
19 testify to data that you aren't certain to be correct or
20 not?

21 A No, and it's certainly not appropriate to testify to
22 a chart that you haven't even looked at and reviewed and
23 compared to the data. I can't imagine how anyone would do
24 that.

25 Q Now to be clear the opinions that you've offered

1 during your direct testimony are not based solely on this
2 chart; right?

3 A None of my opinions are based on that chart.

4 Q It is based on the review of the actual work and lab
5 files that Lifecodes provided?

6 A That's correct.

7 Q Now, I want to go to this point that Mr. Zelenka was
8 asking you about at the end about this sample that you
9 disagree with some of the conclusions on. You don't
10 disagree, however, with these conclusions in this sample
11 on the GQ Alpha Polymarker test results?

12 A That's correct.

13 Q And, therefore, your statistical calculations are
14 based on this sample?

15 THE COURT: That sample is what, ma'am? Identify it
16 for you.

17 Q Sample number 56384, the vaginal swab and saline from
18 MUSC, the male fraction; is that correct?

19 A Yes, it is.

20 Q And even if you did agree with the findings for the
21 sample 56386 the statistical calculations that you've
22 offered would not change?

23 A That's correct. They would be the same.

24 Q The only disagreement you have on this point is that
25 Lifecodes found Mr. Simmons included based on two samples

1 and you find him included only based on one?

2 A That's correct.

3 Q But even if you were included based on both the
4 correct statistical calculation is one in roughly a
5 hundred -- low hundreds?

6 A That's my opinion, yes.

7 Q Now, Mr. Zelenka asked you if that would exclude a
8 large number of people, but isn't it true that it would
9 also include a lot of people other than Mr. Simmons?

10 A That's correct.

11 Q In fact, one in 145 African Americans or one in 336
12 Caucasians would mean that if you had a large stadium or a
13 large shopping mall, for example, you might find dozens of
14 other people in there who are also included in addition to
15 Mr. Simmons, isn't that right?

16 A That's correct.

17 Q Now, about the CTT test results you're asked a number
18 of questions. When you reviewed Ms. Crane's testimony
19 Mr. Zelenka asked you some questions about whether this
20 interpretation is subjective or not and I understand that
21 you agree to a certain extent it is?

22 A Certainly, when there are faint results it can become
23 subjective. I think all reasonable experts would agree
24 for all the major clear results, but there is a level of
25 subjectivity that comes into play.

1 Q Now, do you recall from your review of Ms. Crane's
2 deposition testimony that she testified that she also did
3 not find the CTT test results to be conclusive?

4 A That's correct.

5 Q And they do not incriminate Mr. Simmons in any way?

6 A That's correct. She stated that she would have --
7 she implied that they weren't reported because they were
8 inconclusive and she agreed that there was no significant
9 data from those samples.

10 Q Given that she found those results inconclusive and
11 testified that she was not relying on those findings, was
12 it appropriate for Dr. Baird to include those locations of
13 his statistical calculation?

14 A It was not, no.

15 Q Was it appropriate to tell the jury that Mr. Simmons
16 was included at those locations?

17 A Absolutely not.

18 Q This chart in its unedited form, does it falsely tell
19 the jury that Mr. Simmons' DNA is identical to the
20 evidentiary samples collected from the crime scene?

21 A It does in some portions, yes.

22 Q And, in fact, it isn't identical to the crime scene.
23 It is inconsistent with the findings that were tested from
24 the crime scene samples?

25 A At some locations, that's correct.

1 Q And in your opinion is there a large difference
2 between saying that the statistical significance of this
3 evidence is one in 8 million versus one in roughly 100
4 people?

5 A I think there is a huge difference.

6 Q Thank you. No further questions.

7 A A very meaningful difference.

8 THE COURT: You may step down. You can leave what
9 you put into evidence and take your own stuff back.

10 What is the status on the remaining witnesses?

11 MS. PAAVOLA: Your Honor, we have one remaining
12 witness. I think it may take 30 minutes or less on
13 direct -- probably 30, maybe a little more. I realize
14 that's vague.

15 THE COURT: Well, normally I would go straight
16 through. I have a 12 o'clock appointment that is waiting
17 on me. It will take about 45 minutes to an hour. Y'all
18 can take a lunch break and come back at one.

19 (Whereupon, a lunch break was taken.)

20 ROBIN COTTON, after being duly sworn, testified
21 as follows:

22 DIRECT EXAMINATION

23 BY MS. PAAVOLA:

24 Q Good morning, Dr. Cotton. Could you state and spell
25 your name for the court reporter, please?

1 A My name is Robin Cotton. It's R-O-B-I-N C-O-T-T-O-N.

2 Q Okay. If you could speak up just a little bit, I am
3 having some trouble hearing you. Can you describe your
4 educational background, please?

5 A I have a Bachelor's Degree in Biology from Southern
6 Methodist University in Dallas, Texas and a Master's
7 Degree in Biology from the same institution and I have a
8 Ph.D in Molecular Biology and Biochemistry from the
9 University in California at Irvine.

10 Q How are you currently employed?

11 A Currently, I am on faculty at Boston University
12 School of Medicine and I am the director of a forensic
13 science master's degree program.

14 Q Okay and what do you do there?

15 A Well, I direct the program. There's four full time
16 faculty and a number of adjunct faculty and I teach DNA
17 analysis and I teach a class in advanced DNA analysis. I
18 have a grant from the National Institute of Justice that
19 we're working on that has to do with training DNA analysts
20 -- not students, but DNA analysts in crime labs in mixture
21 analysis.

22 Q Okay. And that grant is a competitive grant?

23 A Yes, it is.

24 Q That you were awarded and you're the principal
25 investigator?