

*From the Laboratory to the Courtroom:**Forensic Challenges in Drug Testing*

Dr. Leo Kadehjian
Palo Alto, California

Any legal issues discussed are presented for informational purposes only, and are not intended to be considered legal advice.

Consult your legal counsel for professional legal guidance.

Forensic Challenges: Specimens, Technologies

- ▶ Urine: Adulteration, substitution, dilution, interpretation
- ▶ Oral fluid: Adulteration, interpretation
- ▶ On-site: Subjectivity, performance
- ▶ Hair: Contamination, bias, ADA, standards
- ▶ Sweat: Contamination, tampering, standards
- ▶ Oculomotor: Science, standards

Forensic Issues for Laboratories / Toxicologists

- ▶ Admissibility of evidence
Legal standards: peer review, known error rate, standards, ...
- ▶ Evidentiary weight
Chain of custody, laboratory performance, interpretation, ...
- ▶ Legal requirements for decisionmaking
Beyond a reasonable doubt, preponderance, ...
- ▶ Laboratory liability
Duty owed, negligence, privacy of records/HIPAA ...
- ▶ Expert liability
Peer oversight

History of Science in Legal Proceedings

<i>2030 BC</i>	Trial by ordeal (fire, poison, battle) Parliament did not formally abolish trial by battle until 1819
<i>1000 BC</i>	Forensic psychology (King Solomon, threatened to cut baby in half)
<i>287–212 BC</i>	Metallurgy (Archimedes detects silver alloying in gold coins by water displacement, "Eureka")
<i>15 BC–19 AD</i>	Forensic chemistry (non-combustibility of heart as indication of poisoning in murder of Germanicus; defense claimed prior heart ailment)

History of Science in Legal Proceedings

<i>1591</i>	Forensic microscopy
<i>1727</i>	Forensic photographs
<i>1822</i>	Daguerreotypes
<i>1836</i>	Forensic chemistry / toxicology (English chemist, Marsh, test for arsenic)
<i>1858</i>	Fingerprints
<i>1860</i>	Spectrographic analysis (flame ionization of inorganics)
<i>1895</i>	X-rays (Roentgen)
<i>1900</i>	Forensic immunology (Landsteiner, blood grouping)

History of Science in Legal Proceedings

1901	Precipitin test for human blood (human or rabbit blood?)
1906	Sound recording
1912	Ballistics, firearms (photos of bullets)
1921	Lie detector
1931	Drunkometer (blood alcohol)
1945	Radar
1948	Truth serum (scopolamine, barbiturates–sodium pentothal, amytal)
<i>Current</i>	Drug tests: Urine, hair, oral fluid, sweat, oculomotor testing, onsite tests, DNA, brain scans (fMRI), ...

Standards of Legal Decisionmaking

“It is better to permit the crime of a guilty person to go unpunished than to condemn one who is innocent.”

Trajan, Roman emperor, 98–117

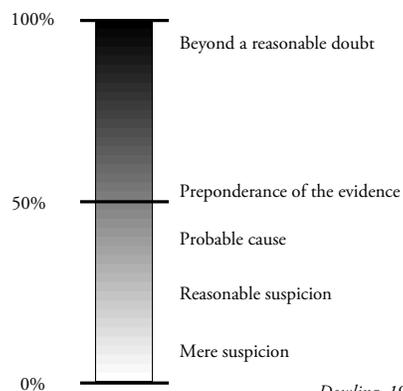
“... commanded that no punishment be carried out except where there are witnesses who testify that the matter is established in certainty beyond any doubt, ...”

“... it is better and more desirable to free a thousand sinners, than to kill one innocent.”

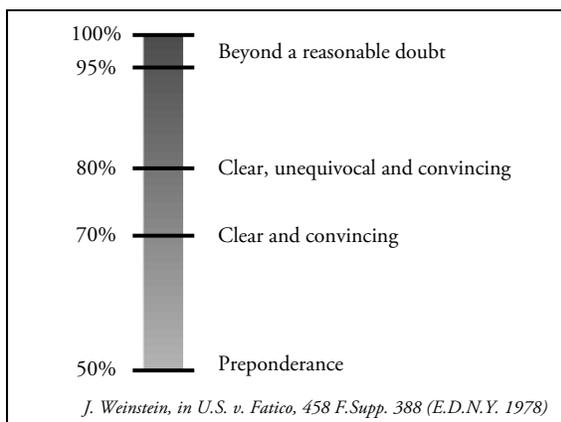
Maimonides, re. Negative Commandment #290, 1135–1204

“It is better that ten guilty persons escape than one innocent suffer.”

Blackstone, The Law of England, 1807



Dowling, 1976



“If the standard is set at so high a level that the probability of an innocent person’s being convicted is zero, the conviction rate for guilty people will also be zero, since only with a zero conviction rate can all possibility of an innocent person’s being convicted be eliminated.”

Posner, 1973

“ . . . the Due Process Clause has never been construed to require that the procedures used to guard against an erroneous deprivation of a protectable ‘property’ or ‘liberty’ interest be so comprehensive as to preclude any possibility of error. The Due Process Clause simply does not mandate that all government decisionmaking comply with standards that assure perfect, error-free determinations.”

Mackey v. Montrym, 1979

“ . . . there simply is no constitutional guarantee that all executive decisionmaking must comply with standards that assure error-free determinations.”

Greenholtz v. Nebraska Penal Inmates, 442 U.S. 1 (1979)

“Of course, it would be unreasonable to conclude that the subject of scientific testimony must be ‘known’ to a certainty; arguably, there are no certainties in science.”

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993)

Evidence

- ▶ Admissibility
- ▶ Weight

Admissibility of Scientific Evidence

Federal courts:

- 1975 Federal Rules of Evidence
- 1993 *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (509 U.S. 579)

State courts:

- Follow Federal Rules / Daubert
- Frye rule (*Kelly-Frye* in CA)
- Frye v. U.S.* (293 F. 1013 (D.C. Cir., 1923))

"Just when a scientific principle or discovery crosses the line between experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs. We think that the systolic blood pressure deception test has not yet gained such standing scientific recognition among physiological and psychological authorities as would justify the courts in admitting expert testimony deduced from the discovery, development, and experiments thus far made. The judgment is affirmed."

Frye v. U.S., 293 F. 1013 (D.C. Cir., 1923)

Federal Rules of Evidence (1975)

Evidence / Admissibility

- Rule 401. Relevant evidence
- Rule 402. Admissibility of relevant evidence
- Rule 403. Exclusion of relevant evidence

Expert opinions

- Rule 702. Testimony by experts
- Rule 703. Basis of expert testimony

Rule 702. Testimony by Experts

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Federal Rules of Evidence (1975, amended 2000)

Rule 703. Bases of Opinion Testimony by Experts

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted. Facts or data that are otherwise inadmissible shall not be disclosed to the jury by the proponent of the opinion or inference unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.

Federal Rules of Evidence (1975, amended 1987, 2000)

Is the theory or technique scientific knowledge which will assist the trier of fact?

- ▶ Testing
- ▶ Peer review or publication
- ▶ Known or potential rate of error
- ▶ Standards controlling operation
- ▶ General acceptance

Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993)

***Drug Tests in Revocation Hearings:
5th Circuit Requirements***

Provide 5 days prior to hearing:

- ▶ Test results
- ▶ Chain of custody
- ▶ Laboratory employee affidavit

Reports made part of record

U.S. v. Grandlund, 5th Cir. 1995

Specimen Handling and Chain of Custody

Chain of Custody

Prove the identity and integrity of the specimen from receipt until reporting of the result

- ▶ Collection
- ▶ Transportation
- ▶ Analysis
- ▶ Reporting

“When it is the barest speculation that there was tampering, it is proper to admit the evidence and let what doubt remains go to its weight.”

People v. Riser, 1956

“The requirement of reasonable certainty is not met when some vital link in the chain of possession is not accounted for, because then it is as likely as not that the evidence analyzed was not the evidence originally received. Left to such speculation, the court must exclude the evidence.”

People v. Riser, 1956

Specimen Collection

- ▶ Trained collectors
- ▶ Adulteration precautions
- ▶ Labeling and sealing
- ▶ Chain of custody form
Donor, collector certification statements
- ▶ Secure storage

Specimen Transfer

- ▶ Secure packaging
- ▶ Documentation
- ▶ Government mail
- ▶ Acknowledged couriers

Corrections Chain of Custody: Federal Cases

- ▶ *Wykoff v. Resig (D.Ind. 1985)*
3–4 hr delay in unlocked refrigerator before transport: Allowed
- ▶ *Soto v. Lord (S.D.N.Y. 1988)*
Incomplete COC form: Not allowed
- ▶ *U.S. v. Burton (8th Cir. 1989)*
Urine in unlocked box in desk for 1 day, 2 week delay in mailing (in locked refrigerator): Allowed

Corrections Chain of Custody: Federal Cases

- ▶ *Pella v. Adams (D.Nev. 1989)*
56 day delay in testing, results not challenged: Allowed
- ▶ *Harrison v. Dahm (8th Cir. 1990)*
No review of evidence log to establish COC: Allowed
- ▶ *Easton v. U.S. Corrections Corp. (6th Cir. 1994, unpublished)*
Error in time (3 hr storage before collection): Allowed

Corrections Chain of Custody: State Cases

- ▶ *Lugo v. Gaines (N.Y.S.Ct. 1981)*
No evidence of COC, 6 inmates' collection together, unlabeled bottles: Not allowed
- ▶ *Stabl v. Pa. Bd. Prob. Parole (Pa. Cmmw.Ct. 1986)*
Urine left in office and refrigerator without security: Allowed
- ▶ *Berrios v. Kuhlman (N.Y.App. 1988)*
Minor deficiencies in COC entries: Allowed

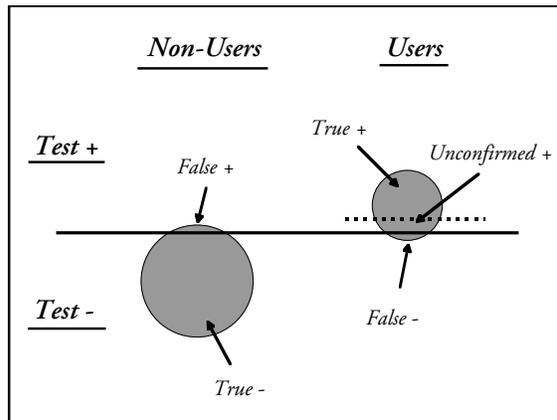
Corrections Chain of Custody: State Cases

- ▶ *McDonald v. State (Md.S.Ct. 1988)*
Insufficient COC testimony: Not allowed
- ▶ *Bourgeois v. Murphy (Id.S.Ct. 1991)*
No documentation of COC: Not allowed
- ▶ *Curry v. Coughlin (N.Y.App. 1991)*
Specimen unattended 6 hr, but only speculation: Allowed

Laboratory Analysis

- ▶ Accessioning
- ▶ Analysis
- ▶ Secure storage

*Scientific Foundations of Laboratory Methods
and
Demonstration of their Proper Performance*



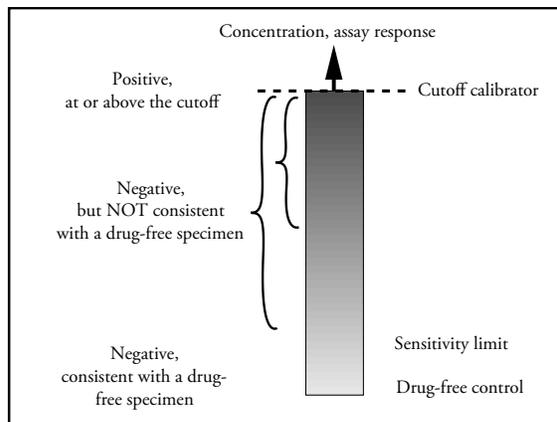
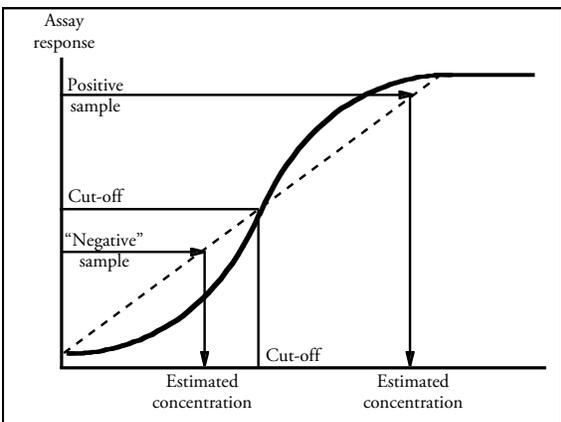
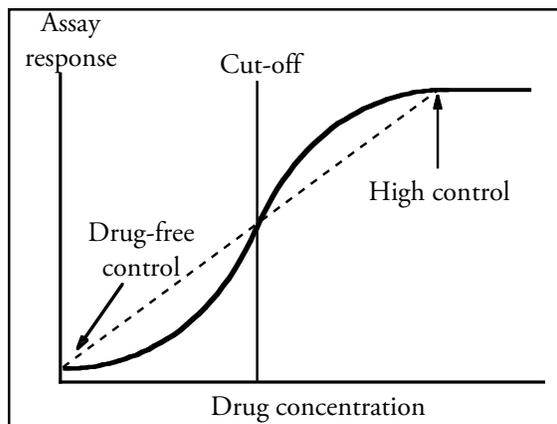
Qualitative
(positive, negative)

vs.

Quantitative
(ng/mL, immunoreactive equivalents, rate units)

vs.

“Semi-quantitative”
(no such thing!?)



“Indeed, the two studies involving the largest sample sizes place the Emit test at a level of certainty even *higher* than the reasonable doubt standard.”

Peranzo v. Coughlin, 608 F.Supp. 1504 (D.C.N.Y. 1985)

Center for Disease Control

Studies on Emit®

97 – 99% Accuracy

Jensen v. Lick, 589 F.Supp. 39 (1984)

96% Accuracy, Survey of 64 labs

Peranzo v. Coughlin, 608 F.Supp. 1504 (D.C.N.Y. 1985)

NY Department of Correctional Services

AAB Proficiency Survey

40 Sites, 4 years

99.7% Accuracy, 3067 Samples

98.7% Accuracy, 730 Positives

Peranzo v. Coughlin, 675 F.Supp. 102 (S.D.N.Y. 1987)

“The Package Insert is your Friend”

(but may also be your enemy!)

Reporting

- ▶ **Completeness:**
 - Specimen id, collection date, lab receipt date, testing date
 - Methods, calibration, controls, cutoffs, results
 - Personnel performing, reviewing, authenticating
- ▶ **Clarity**
- ▶ **Confidentiality**

Recordkeeping

- ▶ Sufficient records for thorough scientific and chain of custody review
- ▶ Calibration and control data
- ▶ Specimen test data
- ▶ Evidence of review

Challenges to Interpretation of Test Results

6th Amendment: Right to Confrontation

Hearsay exception:

- ▶ Public records
 - Police reports, birth certificates, ...
- ▶ Business records
 - Lab reports
 - U.S. v. Grandlund (5th Cir. 1995)
 - Must provide:
 - Test results
 - Chain of custody
 - Lab employee affidavit
- ▶ Indicia of reliability

Melendez-Diaz v. Massachusetts, 129 S.Ct. 2527, 6/25/09

Do laboratory reports satisfy 6th Amendment rights to confrontation?

6th Amendment:

“In all criminal prosecutions, the accused shall enjoy the right ... to be confronted with the witnesses against him; ...”

- ▶ Are laboratory analysts “witnesses” against the accused?
- ▶ Are crime laboratory reports “testimonial”?

Melendez-Diaz v. Massachusetts: Case Facts

- ▶ Confiscated drugs analyzed by State Laboratory Institute of the Massachusetts Department of Public Health
- ▶ Test results reported in notarized certificate: “... drugs found to contain: cocaine.”
- ▶ No data provided regarding methods, analyst qualifications

Melendez-Diaz v. Massachusetts: Majority

Defendant:

- ▶ Knew well in advance of introduction of test results
- ▶ Made no effort to mount a defense against test results
- ▶ Did not challenge test results
- ▶ Had opportunity but did not request independent testing
- ▶ Did not challenge test reliability: methods, analyst qualifications

Melendez-Diaz v. Massachusetts: Majority (5-4)

- ▶ Notarized laboratory reports were affidavits = “testimonial”
- ▶ Reports were not public or business records granted exception to hearsay rule
- ▶ Reports were created for sole the purpose of providing evidence against defendant
- ▶ Medical reports created for treatment purposes are not “testimonial”
- ▶ Laboratory analysts are “witnesses against”
- ▶ Defense power to subpoena is no substitute for right of confrontation
- ▶ Confrontation Clause may not be relaxed because of burden to the government
- ▶ Thus, violation of 6th Amendment right to confrontation, remanded

1603 *Raleigh's Case*, 2 How. St. Tr. 1

Sir Walter Raleigh treason trial
Notorious example of admission of *ex parte* testimony

1980 *Ohio v. Roberts*, 448 U.S. 56

Evidence with particularized guarantees of
trustworthiness admissible without confrontation

2004 *Crawford v. Washington*, 541 U.S. 36

6th Amendment requires testimony by witness to crime
Overturned *Ohio v. Roberts*

2006 *Davis v. Washington*, 547 U.S. 813

6th Amendment requires testimony by witness to crime

Melendez-Diaz v. Massachusetts: Majority Footnote

- ▶ Do not hold that anyone whose testimony may be relevant in establishing the chain of custody, authenticity of the sample, accuracy of the testing device must appear
- ▶ Prosecution must establish chain of custody, but not everyone must be called
- ▶ Gaps in the chain of custody normally go to the weight of the evidence rather than its admissibility
- ▶ Prosecution decides what chain of custody steps are so crucial as to require evidence; but what testimony is introduced must (if defendant objects) be live

Melendez-Diaz v. Massachusetts: Majority

- ▶ Forensic evidence not as neutral or as reliable as respondent suggests
- ▶ Cite 2009 report:
"Strengthening Forensic Science in the United States :
A Path Forward"
National Research Council, National Academy of Sciences
- ▶ Analysts who swore the affidavits provided testimony against the defendant and are therefore subject to confrontation
- ▶ "We would reach the same conclusion if all the analysts always possessed the scientific acumen of Mme. Curie and the veracity of Mother Theresa."

Melendez-Diaz v. Massachusetts: Majority

"Many states have already adopted the constitutional rule we announce today"

Colorado
District of
Columbia
Florida
Georgia
Illinois
Minnesota
Mississippi
Missouri
Nevada
Oregon

Melendez-Diaz v. Massachusetts: Dissent

- ▶ Sweeps away 90 years of established rule across 35 states and 6 Federal Courts of Appeal
- ▶ Real differences between laboratory analysts and conventional "witnesses"
- ▶ The word "testimonial" does not appear in the text of the Confrontation Clause
- ▶ Vast potential to disrupt criminal procedures
- ▶ "... the Court has, for all practical purposes, forbidden the use of scientific tests in criminal trials."
- ▶ "... transforms the Confrontation Clause from a sensible procedural protection into a distortion of the criminal justice system."

Melendez-Diaz v. Massachusetts: Dissent

No accepted definition of analyst:

- ▶ One person prepares sample, places in analyzer, retrieves printout
- ▶ Another person interprets test printout
- ▶ Another person calibrates analyzer (perhaps independent contractor?)
- ▶ Laboratory director certifies that proper procedures were followed

Not at all evident which is the analyst to be confronted; all four?

Melendez-Diaz v. Massachusetts: Dissent

- ▶ All 6 Federal Courts of Appeal who have considered the issue (1st, 2nd, 4th, 5th, 8th, 10th) agree that analysts are not required to testify
- ▶ 24 State Courts and the Armed Forces Court of Appeals
- ▶ 16 States' Rules of Evidence allow scientific tests without testimony
- ▶ 6 State courts' hearsay rules require analysts to testify
- ▶ "The Confrontation Clause is not designed, and does not serve, to detect errors in scientific tests."

Melendez-Diaz v. Massachusetts: Dissent

"Laboratory analysts are not "witnesses against" the defendant as those words would have been understood at the framing."

- ▶ Witnesses recall events in the past in response to questions under interrogation, but analysts provide near contemporaneous observations
- ▶ Analysts don't observe crime or any human activities related to it; analysts often don't know the defendant's identity
- ▶ Scientific tests are conducted according to scientific protocols, not dependent nor controlled by interrogation
- ▶ There was no indication that analysts were adversarial nor that adversarial officers played a role in formulating the analysts' certificates

1/25/10 *Briscoe v. Virginia*, 559 U.S. ____ (2010)

Vacated Va. S. Ct. decision which had upheld admission of state forensic lab certificate in cocaine conviction because statute allows the accused the right to call the analyst thus fulfilling 6th Amendment confrontation rights and defendant failed to utilize statutory procedure and thereby waived challenge

Remanded for proceedings not inconsistent with *Melendez-Diaz*

9/6/10 Admission of analyst's certificates without live testimony violated Confrontation Clause, *but* was harmless error because of other evidence, admissions

Right to Confrontation of Laboratory Technicians: Probation Revocations

"However, as Minnitt recognizes, *Melendez-Diaz* interprets a defendant's right to confrontation under the Sixth Amendment in a criminal prosecution, not the limited due process right to confrontation afforded a defendant in a revocation proceeding. Compare *id.* at 2531-32, with *McCormick*, 54 F.3d at 220-21. While standards of the Sixth Amendment may extend to a revocation proceeding, because a revocation proceeding is not a criminal prosecution, the Amendment does not fully apply. See *United States v. Hodges*, 460 F.3d 646, 650 (5th Cir. 2006). *Melendez-Diaz* does not change the analysis used in *McCormick* for applying the limited due process right to confrontation in a revocation proceeding. *McCormick* followed the Supreme Court's opinion in *Morrissey v. Brewer*, 408 U.S. 471 (1972), which is unaffected by *Melendez-Diaz*."

U.S. v. Minnitt, 617 F.3d 327, 5th Cir. (2010)

Bullcoming v. New Mexico, U.S. Supreme Court, 6/23/11

- ▶ DWI conviction (BAC = 0.21 g/100 mL)
- ▶ Laboratory reported admitted, but without live testimony from the analyst who performed the test
- ▶ Analyst's associate testified
- ▶ Associate was qualified as an expert on gas chromatography and the laboratory's procedures

BUT,

- ▶ Associate did not participate in nor observe the testing
- ▶ Associate's testimony held as insufficient
- ▶ Violation of 6th Amendment right to confrontation
- ▶ Reversed conviction and remanded

Georgia: Statutes, Case Law

Miller v. State, 266 Ga. 850, 427 S.E. 2d 74 (1996)

Admission of drug analyst affidavit violated right of confrontation

Struck down statute requiring good cause to call analyst

Georgia Forensic Sciences Act of 1997

Burden-shifting statute ("Notice and Demand")

O.C.G.A. §35-3-16

O.C.G.A. §35-3-154.1 (2004)

Prosecution gives notice of intent to use analyst report

Defense may object, at least 10 days prior to trial, demand analyst testimony

Georgia Forensic Sciences Act of 1997

Georgia Bureau of Investigation,
Forensic Sciences Division

O.C.G.A. §35-3-16

- ▶ Lab employee prepares certificate, signs under oath
- ▶ Certificate will be admissible evidence
- ▶ Notice of intent to proffer and provision of report must be made at least 10 days prior to 1st proceeding
- ▶ Opposing party may object, but must do so at least 10 days prior to trial

O.C.G.A. §35-3-154.1 (2004)Admission of reports from state crime laboratory

- ▶ Analyst report under oath of methods and findings is prima facie evidence
- ▶ Report shall have the effect as if the analyst personally testified
 - Analyst certification to perform test
 - Experience as analyst and as expert witness
 - Conducted tests using approved procedures and report accurately reflects opinion
- ▶ Prosecution shall serve report prior to first proceeding
- ▶ Report shall contain notice of right to demand testimony of person signing report
- ▶ Defendant may object but at least 10 days prior to trial

Georgia Laboratory Analyst Testimony Cases

- 1996 *Miller v. State*, 472 S.E.2d 74 (Ga.S.Ct.)
Admission of drug analyst affidavit violated right of confrontation
- 2008 *Dunn v. State*, 665 S.E.2d 377 (Ga.App.)
PA lab supervisor expert testimony admissible
Technician report not introduced
- 2009 *Carter v. State*, 677 S.E.2d 792 (Ga.App.)
Lab supervisor testimony admissible
- 2009 *Reddick v. State*, 679 S.E.2d 380 (Ga.App.)
Lab supervisor expert testimony admissible

Georgia Laboratory Analyst Testimony Cases

- 2009 *Rector v. State*, 681 S.E.2d 157 (Ga.S.Ct.)
Admitted state toxicologist testimony about another's report
Even if error in admission, error was harmless
- 2010 *Carolina v. State* (Ga.App.)
Lab supervisor testimony admissible
Data/report prepared by non-testifying technician was not admitted into evidence
Expert interpreting data did testify and was subject to cross-examination

11/1/10 *Herrera v. State*, Ga.S.Ct., 288 Ga. 231

Admission of hospital lab report harmless
Expert toxicologist supervisor testified

10/1/12 *Leger v. State*, Ga.S.Ct., 291 Ga. 584

DNA testing, allowed testimony by supervisor

5/7/12 *Disharoon v. State*, Ga.S.Ct., 291 Ga. 45, 727 S.E.2d 465

“consistently held that the Confrontation Clause does not require the analyst who actually completed the forensic testing used against a defendant to testify at trial.”

“Nor is a machine a “witness against” anyone. If the readings are “statements” by a “witness against” the defendants, then the machine must be the declarant. Yet how could one cross-examine a gas chromatograph?”

2008 *Dunn v. State*, 665 S.E.2d 377 (Ga.App.)

Georgia Cases

- 1983 *Smith v. State*, 298 S.E.2d 482
Automated immunoassay reliable (EMIT)
- 1993 *Hubbard v. State*, 429 S.E.2d 123 (Ga.App.)
Reversed conviction
No evidence of test reliability (NIDT)
Test not widely recognized
No expert opinion provided

Georgia Cases

- 2001 *Cheatwood v. State*, 548 S.E.2d 384 (Ga.App.)
Upheld probation revocation (NIDT)
Sufficient expert testimony on reliability
- 2004 *Grinstead v. State*, 605 S.E.2d 417 (Ga.App.)
Reversed probation revocation
Insufficient support
No expert testimony
Meth/morphine case vs. previous THC/cocaine case

Laboratory Liable

- 10/91 *Elliot v. Laboratory Specialists (LA Appl.)*
\$25K damages for inadequate procedures
- 11/91 *Lewis v. Aluminum Co. of America (LA Appl.)*
Laboratory owes a duty to the employee
- 10/91 *Dick v. Koch Gathering Systems and Roche Biomedical Laboratories (KS Dist. Ct.) (appealed)*
\$675K damages, \$3.4m punitive award for improper procedures and invalid results
- 2/95 *Stinson v. Physicians Immediate Care (IL Appl.)*
Lab owes duty to employee to use reasonable care

Laboratory Not Liable

- 9/93 *Santagada v. Lifedata Medical (SDNY)*
Lab not liable for collection service errors
- 3/94 *Caputo v. CompuChem (3rd Cir.)*
No duty for lab to serve as MRO, unless in contract
- 6/95 *Devine v. Roche (ME S. Ct.)*
Employee not a beneficiary to lab/employer contract
Lab owes a tort duty to employee
- 8/95 *Willis v. Roche Biomedical Laboratories (5th Cir.)*
Lab owes no duty to employee to use reasonable care
- 12/95 *Salomon v. Roche CompuChem (EDNY)*
No private action for lab not providing certification

Laboratory May Be Liable

- 1/94 *Devine v. Roche Biomedical Laboratories (ME S. Ct.)*
Contract unclear regarding duty to interpret results
- 7/95 *SmithKline Beecham v. Doe (TX S. Ct.)*
Possible interference with employment contract
Lab owed no duty to employee to interpret results

- ▶ Know what you know and present with confidence!
- ▶ Know and accept what you don't know!
- ▶ Know and acknowledge what you are uncertain about and why.



Credibility