

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

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This review of some of the legal issues in drugs of abuse testing is intended for informational use only.

Any legal information or opinions presented herein are not intended to be considered legal advice from the author, nor to substitute for professional legal advice.

Consult your own legal counsel for professional guidance.

Dr. Kadehjian is engaged by Siemens Healthineers to make educational presentations to customers regarding forensic testing for drugs of abuse.

This presentation expresses only the views of Dr. Kadehjian and not the views of any other person or company.

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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

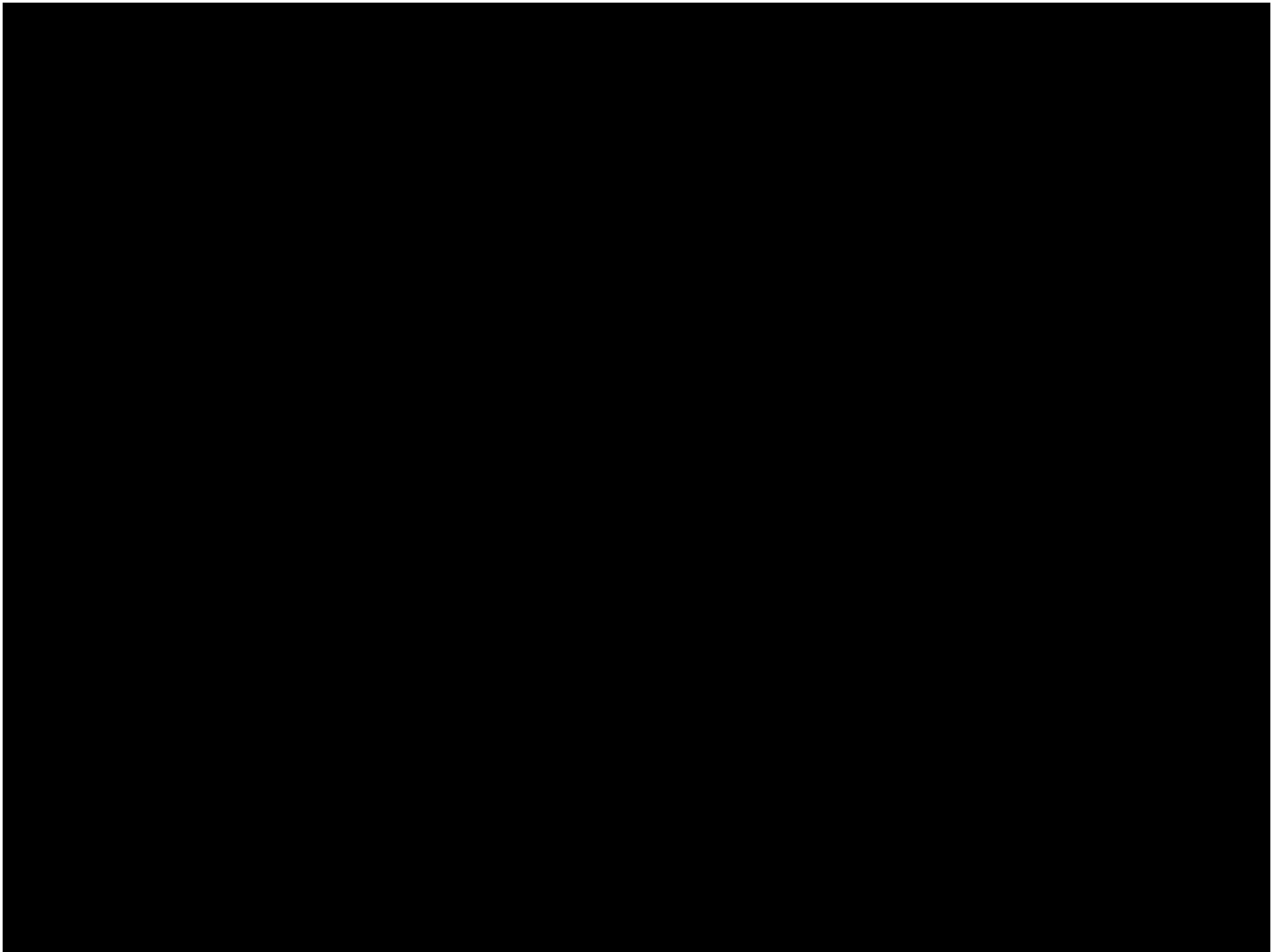
Duty owed, negligence, privacy of records/HIPAA ...

- ▶ Expert liability

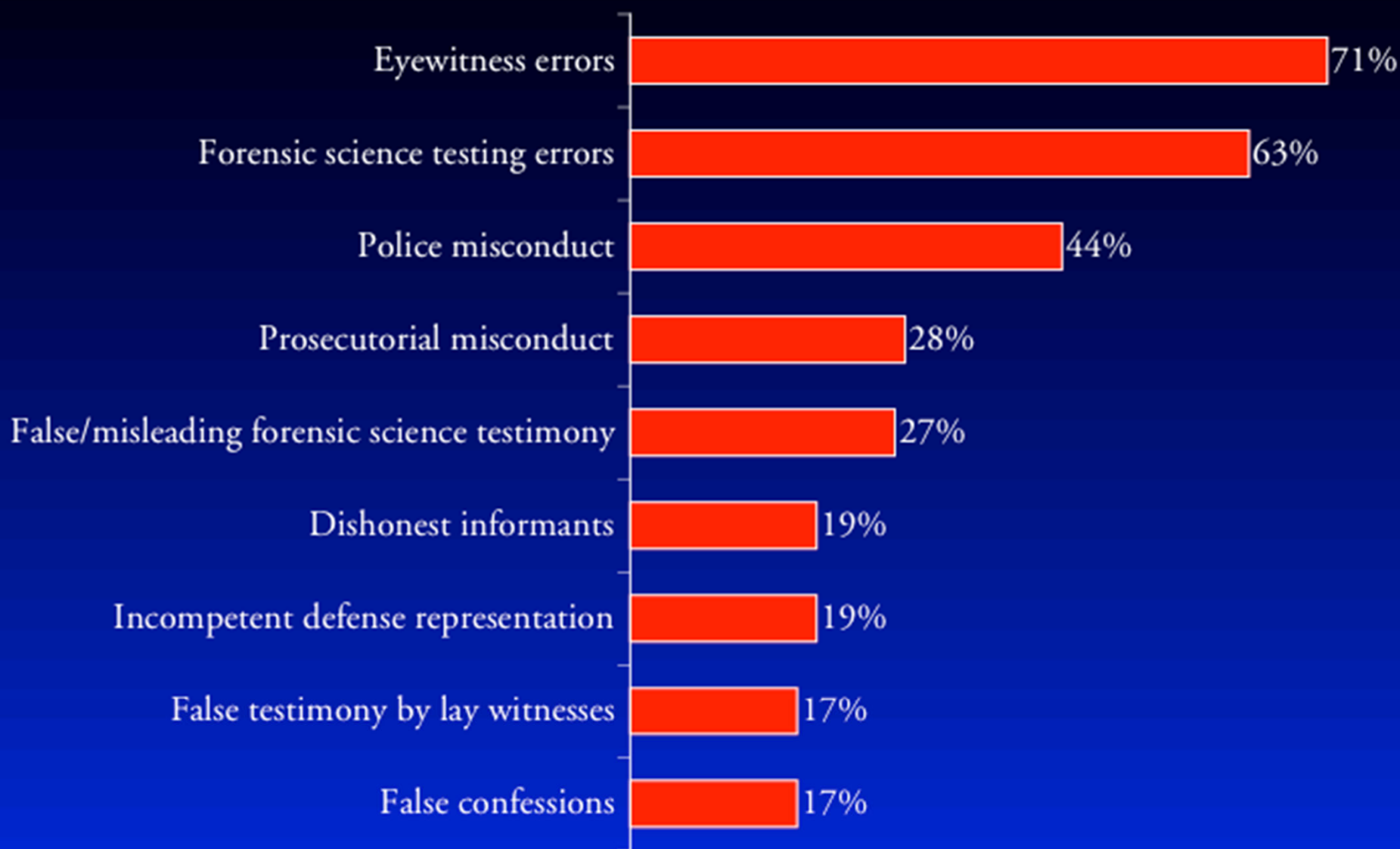
Peer oversight

Forensic Challenges: Specimens, Technologies

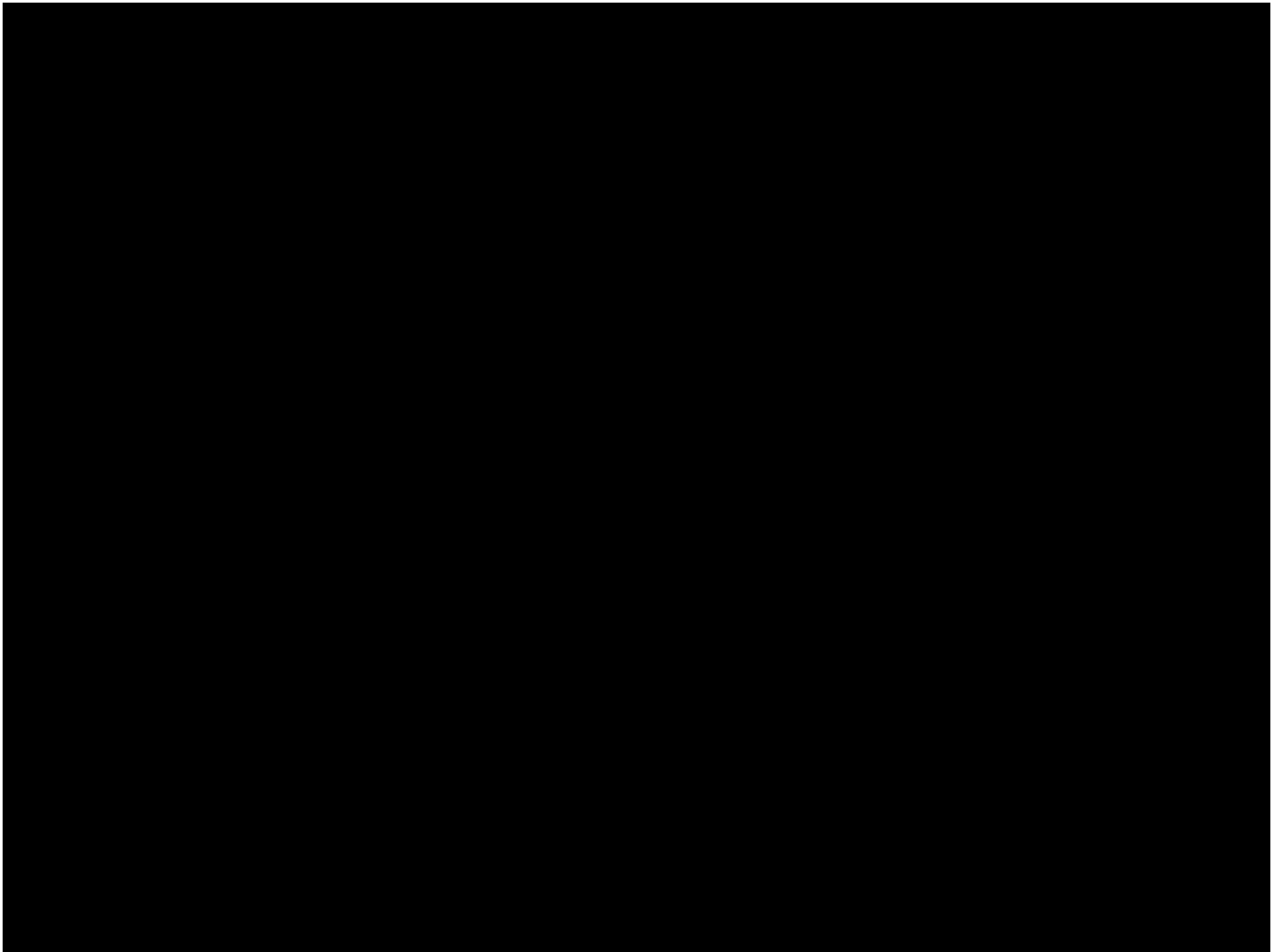
- ▶ Urine: Adulteration, substitution, dilution, interpretation
- ▶ Oral fluid: Adulteration, interpretation
- ▶ On-site: Subjectivity, performance
- ▶ Hair: Contamination, bias, ADA, standards
- ▶ Sweat: Contamination, tampering, standards
- ▶ Oculomotor: Science, standards



86 DNA Exoneration Cases: Wrongful Conviction Factors



M. Saks and J. Koehler, 2005









Laboratory Liabile

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







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

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

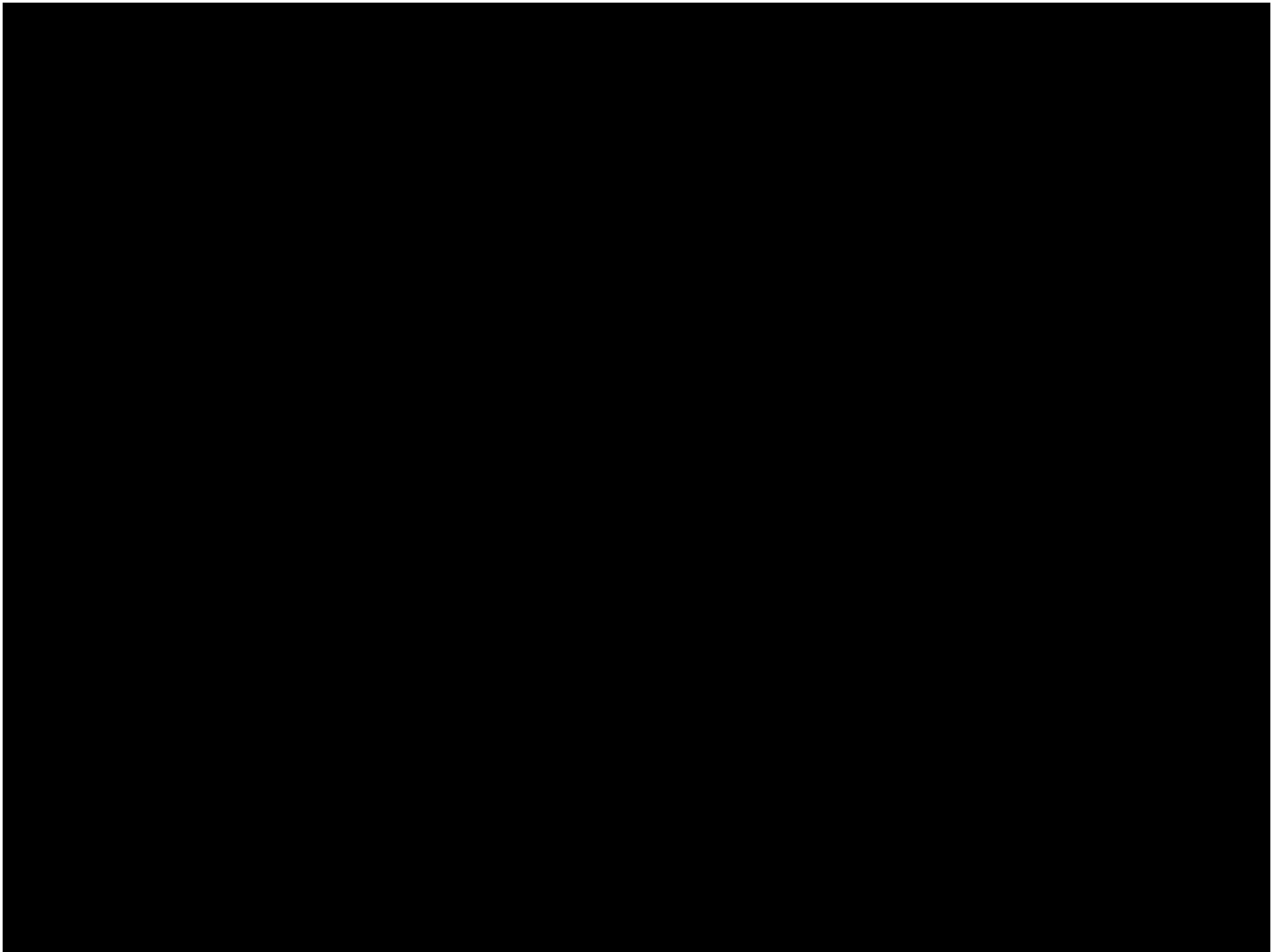
History of Science in Legal Proceedings

<i>1901</i>	Precipitin test for human blood (human or rabbit blood?)
<i>1906</i>	Sound recording
<i>1912</i>	Ballistics, firearms (photos of bullets)
<i>1921</i>	Lie detector
<i>1931</i>	Drunkometer (blood alcohol)
<i>1945</i>	Radar
<i>1948</i>	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

“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

“ . . . 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)

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) 1923 *U.S. v. Frye* (D.C. Cir.)

“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. ...”

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. 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.

Federal Rules of Evidence, 1975

Rule 703. 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 of reasoning 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.

Federal Rules of Evidence, 1975



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)

“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)

100%

Beyond a reasonable doubt

50%

Preponderance of the evidence

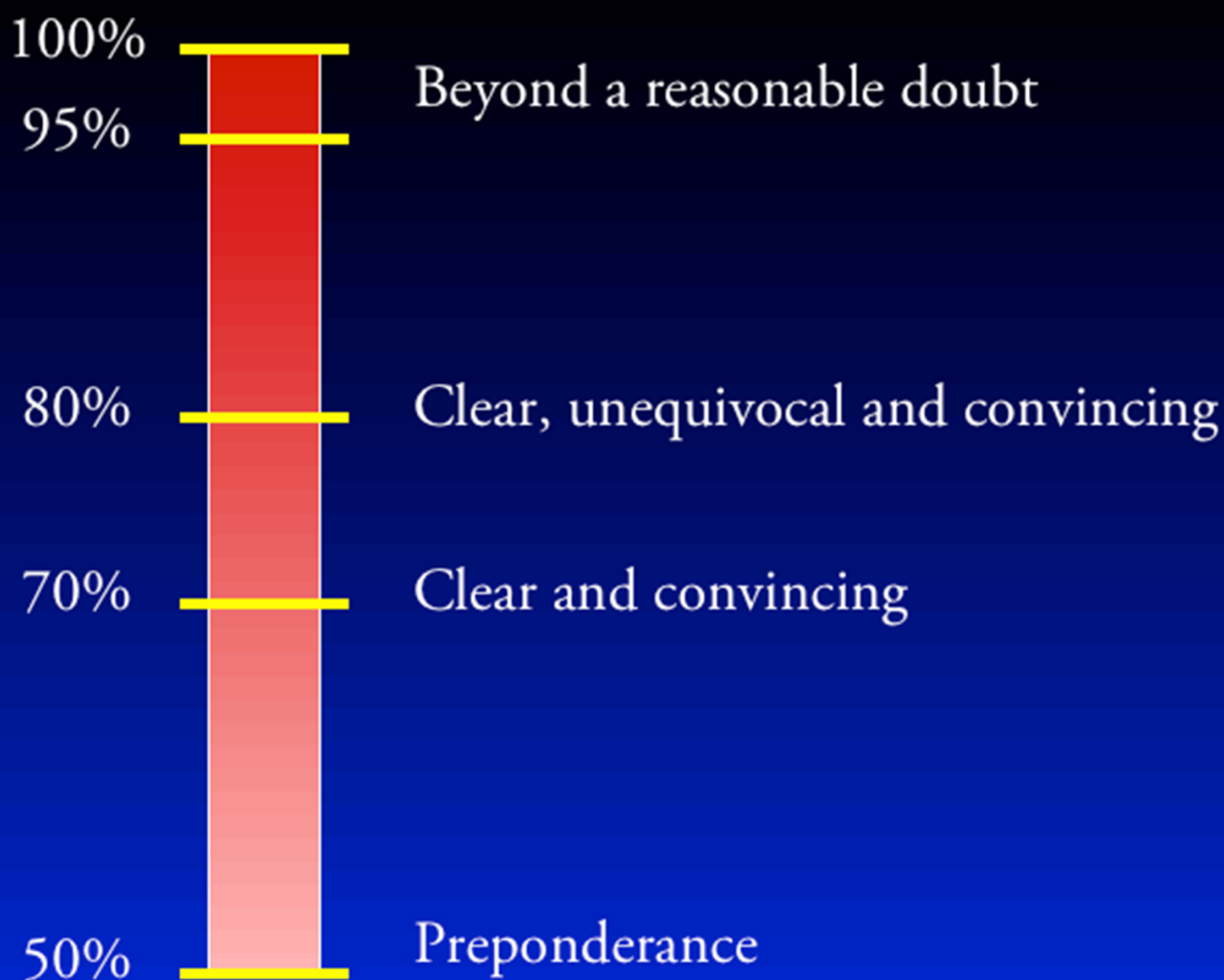
Probable cause

Reasonable suspicion

Mere suspicion

0%

Dowling, 1976



J. Weinstein, in U.S. v. Fatico, 458 F.Supp. 388 (E.D.N.Y. 1978)





Scientific Foundations of Laboratory Methods
and
Demonstration of their Proper Performance

Pharmacokinetics

Pharmacodynamics

Dose → Blood → Receptors → Effects

Absorption

Distribution

Metabolism

Elimination → Urine, sweat, oral fluid, hair, ...

Non-Users

Users

Test +

True +

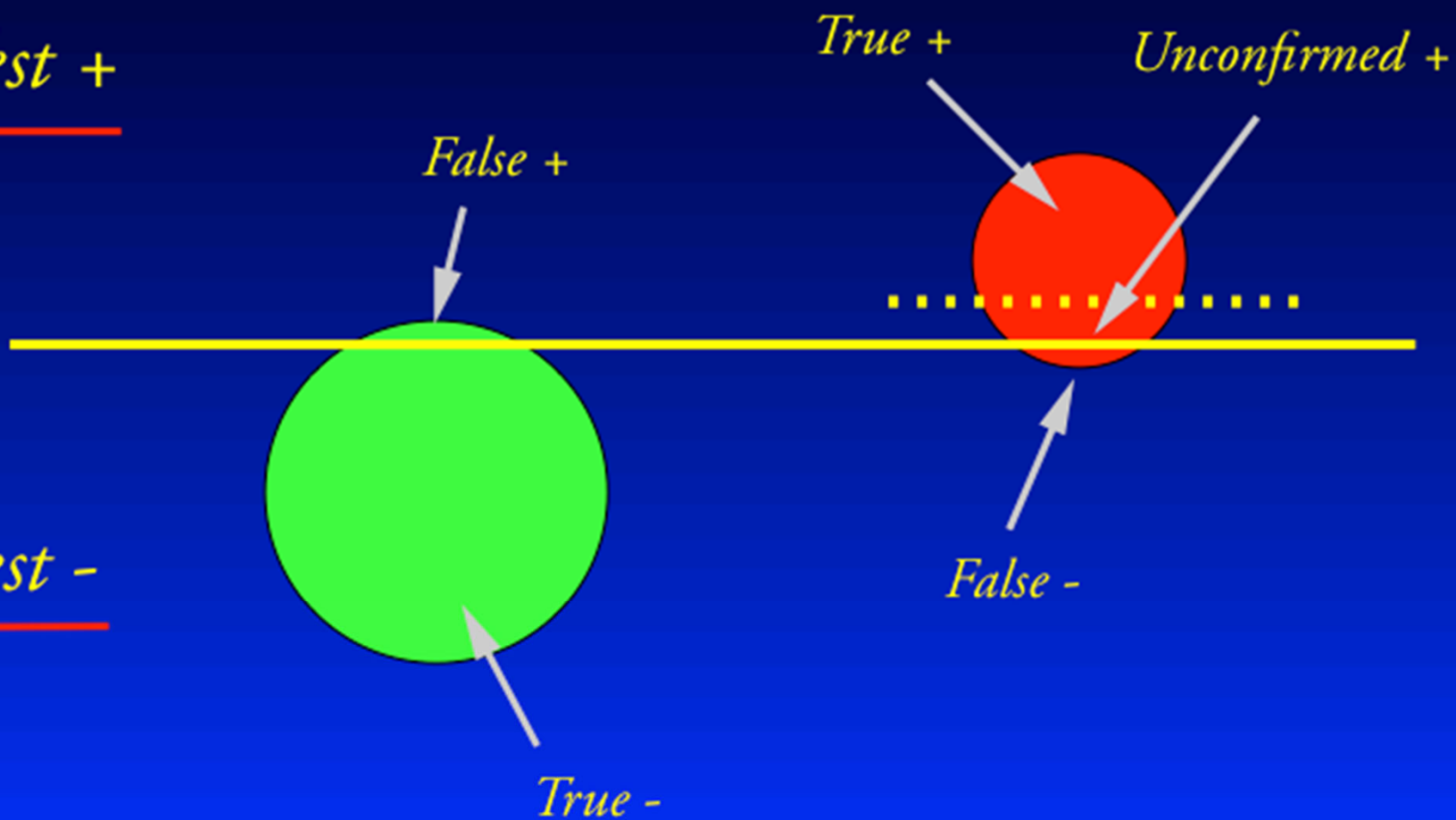
Unconfirmed +

False +

Test -

False -

True -



Qualitative

(positive, negative)

VS.

Quantitative

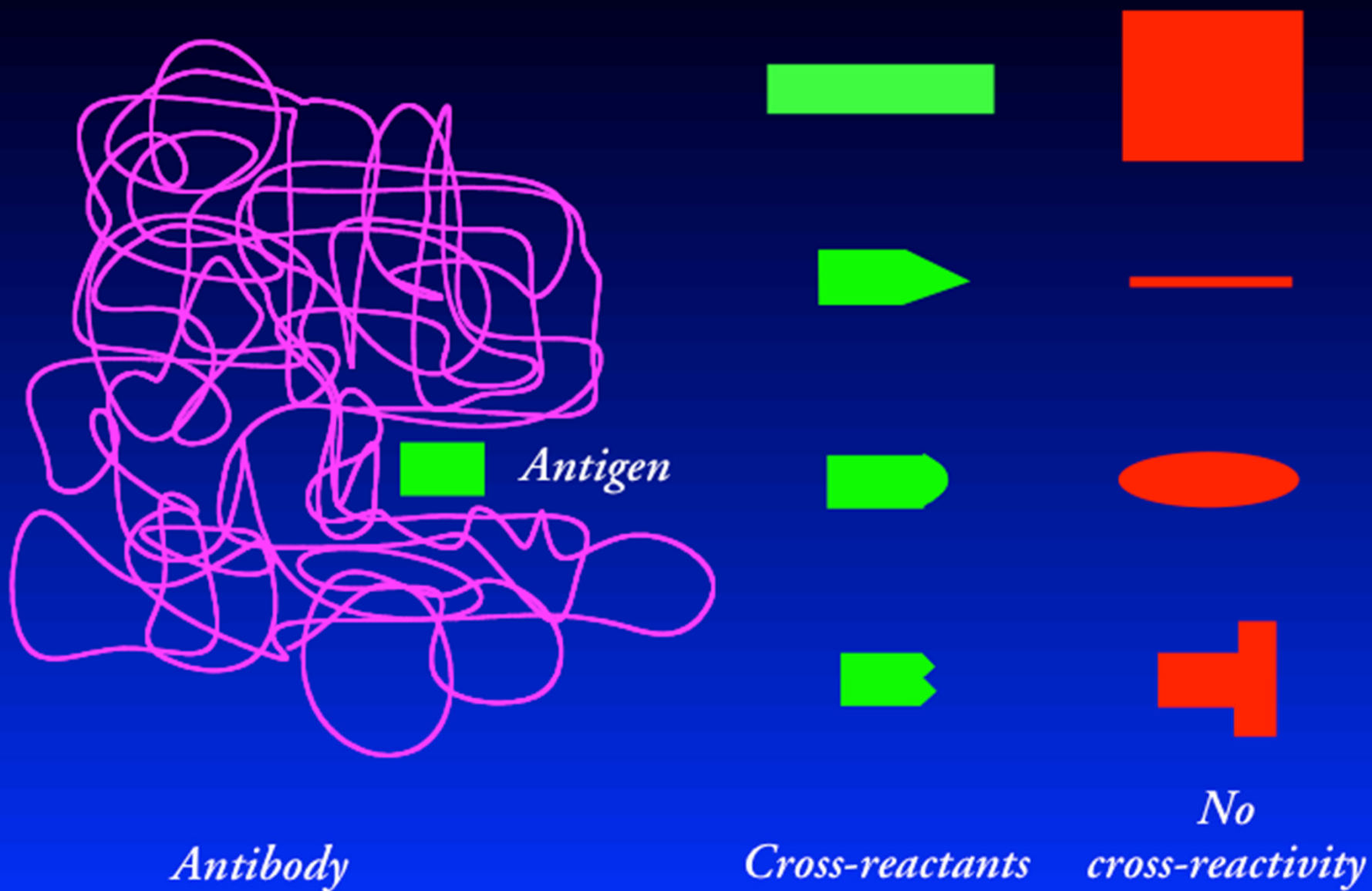
(ng/mL, immunoreactive equivalents, rate units)

VS.

“Semi-quantitative”

(no such thing!?)

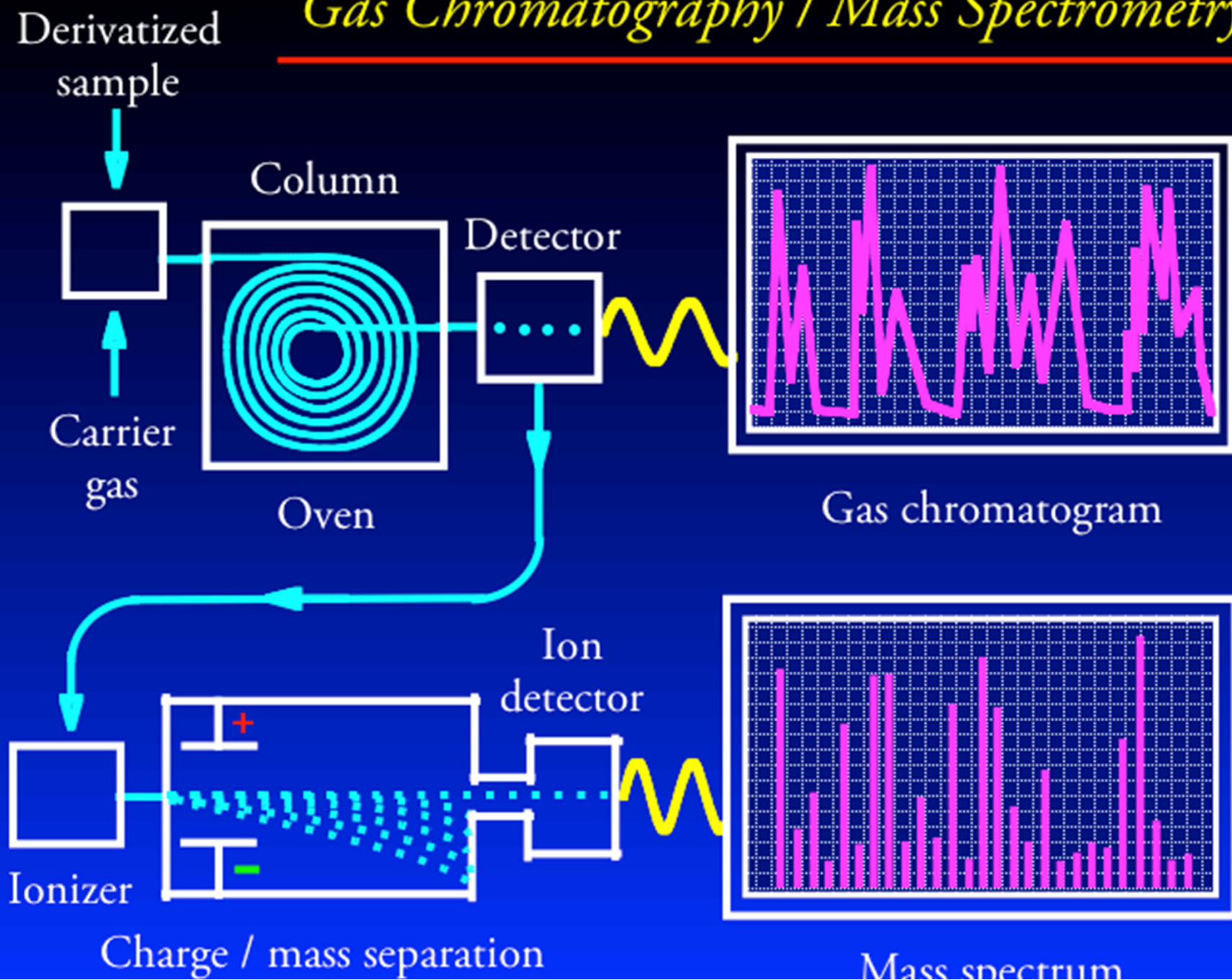
Antibody Specificity: Cross-Reactivity



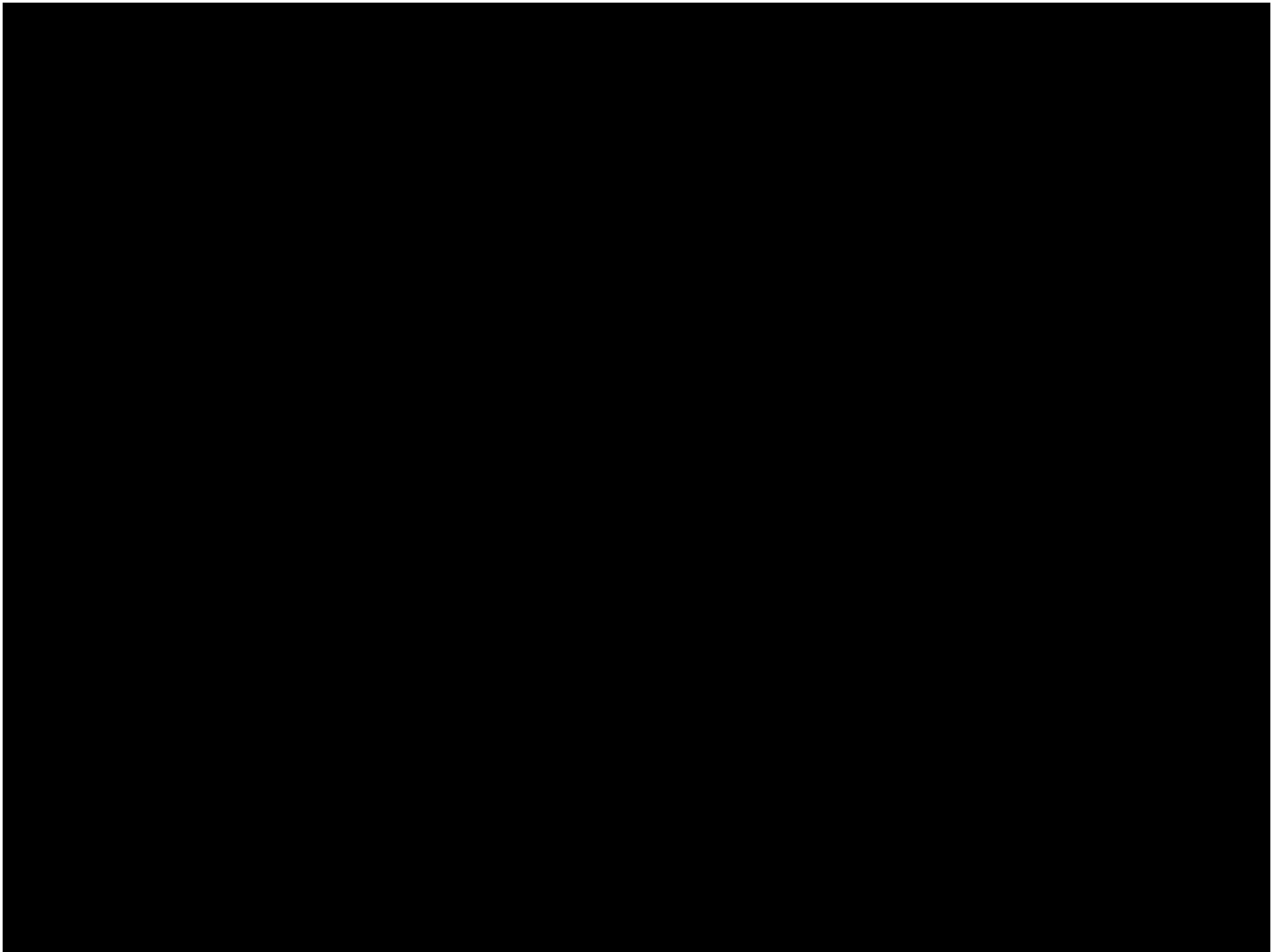
“The Package Insert is Your Friend”

(but may also be your enemy!)

Gas Chromatography / Mass Spectrometry



Is confirmation testing *ALWAYS* required?



Centers for Disease Control

Studies on Emit[®]

97 – 99% Accuracy

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

96% Accuracy, Survey of 64 labs

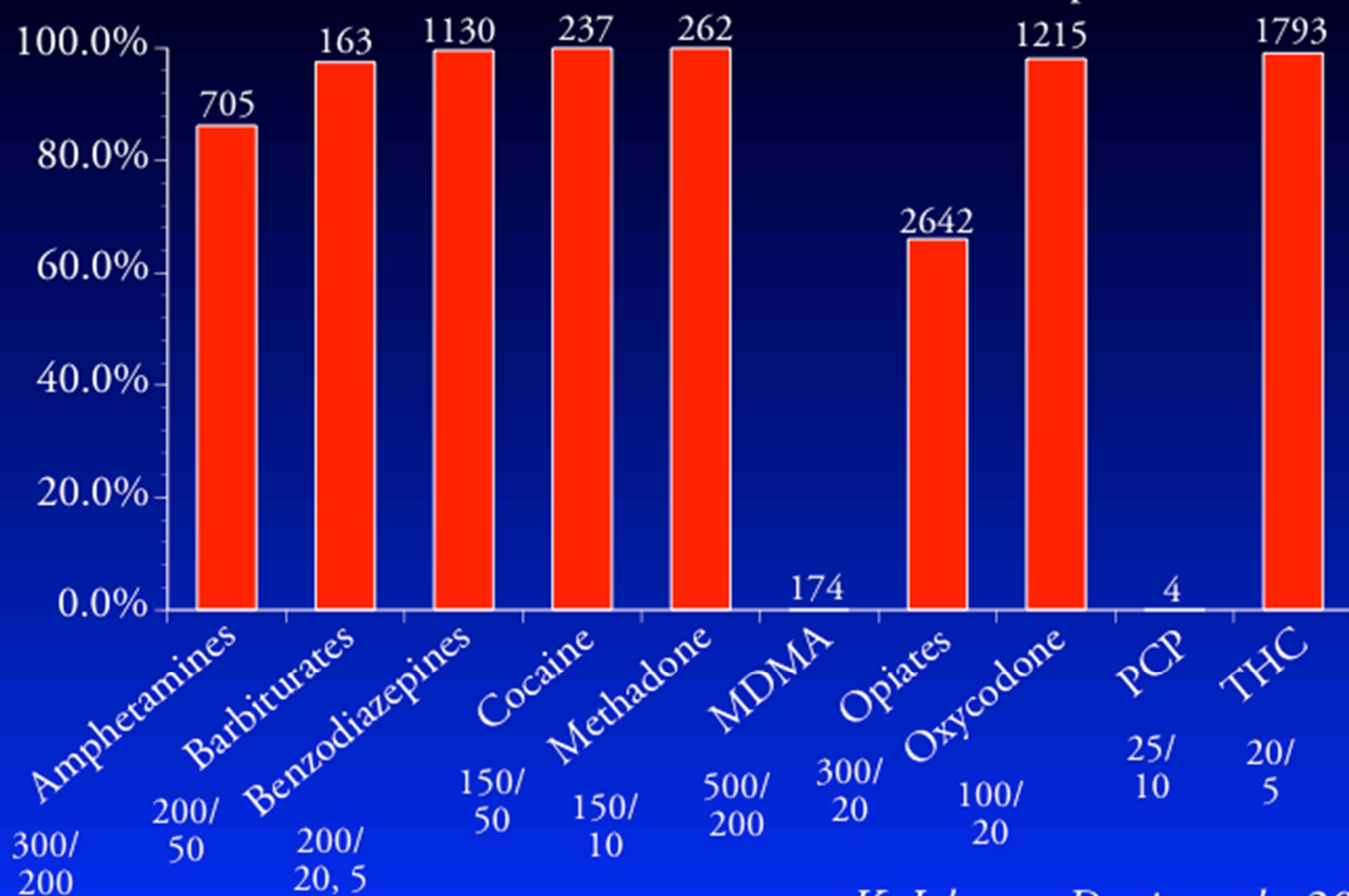
Peranzo v. Coughlin, 608 F.Supp. 1504 (D.C.N.Y. 1985)

“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)

Immunoassay Confirmation Rates

n = 8825 clinical specimens



K. Johnson-Davis et al., 2016

“Negative”

does NOT mean

“No drug”

Assay
response

Positive
specimen

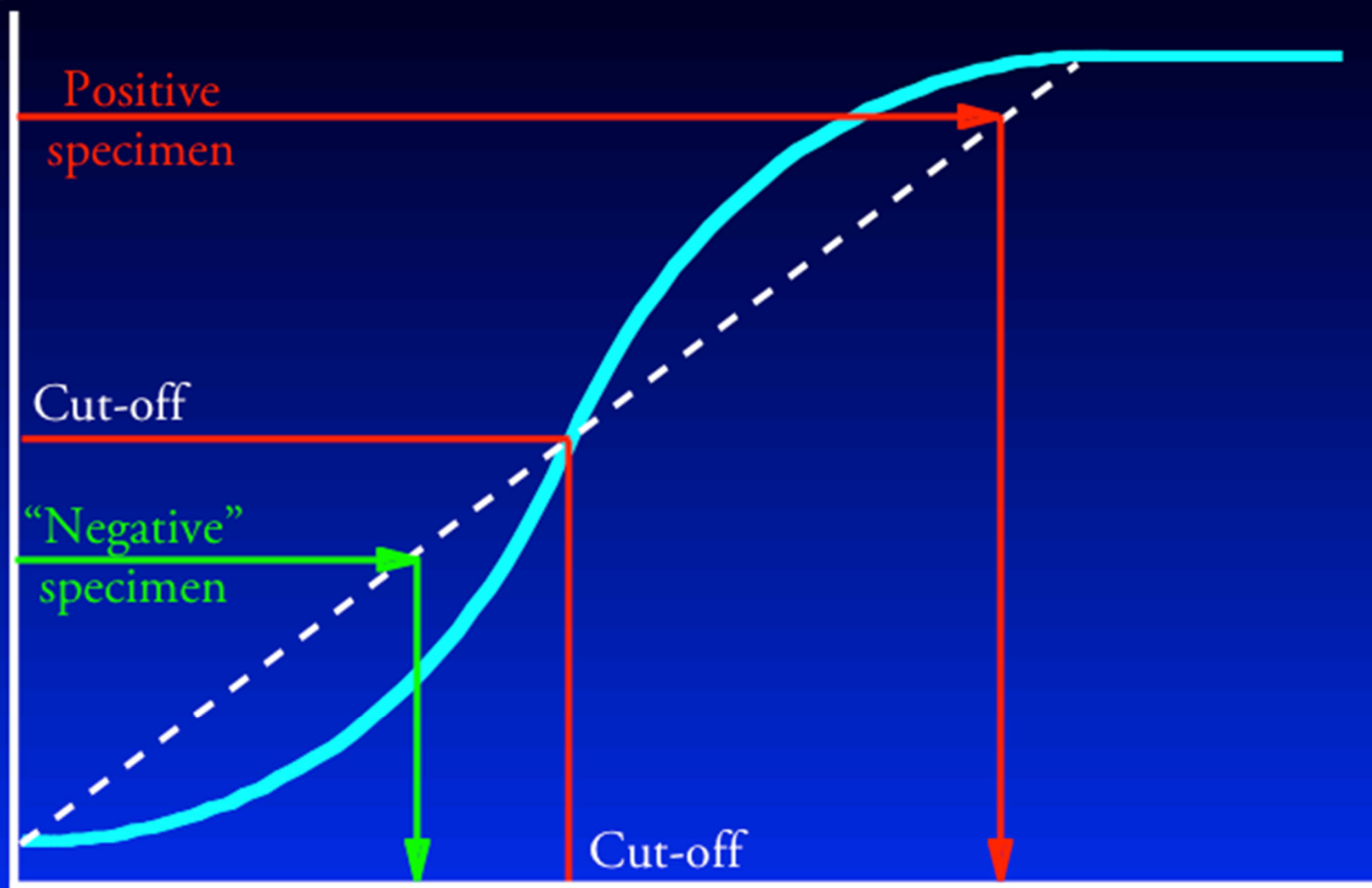
Cut-off

"Negative"
specimen

Cut-off

Estimated
concentration

Estimated
concentration



In re Brown, CA Supreme Court, 1998

- ▶ Positive immunoassay
- ▶ “Negative” GC/MS confirmation
- ▶ Positive immunoassay not automatically a “false positive”
- ▶ Concentration of drug may have been below the laboratory’s GC/MS cutoff

17 Cal.4th 873, 72 Cal.Rptr.2d 698, 952 P.2d 715

Concentration, assay response

Positive,
at or above the cutoff

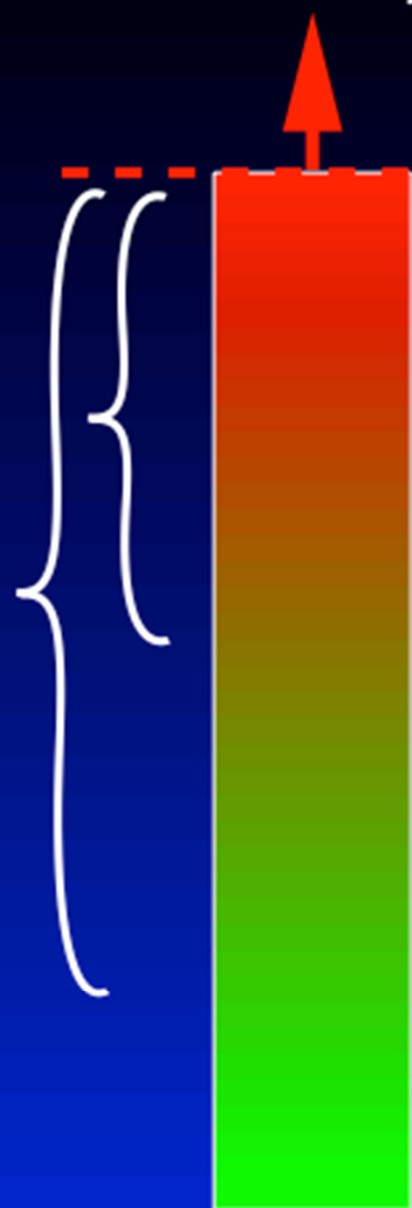
Cutoff calibrator

Negative,
but NOT consistent
with a drug-free specimen

Sensitivity limit

Negative,
consistent with a drug-
free specimen

Drug-free control



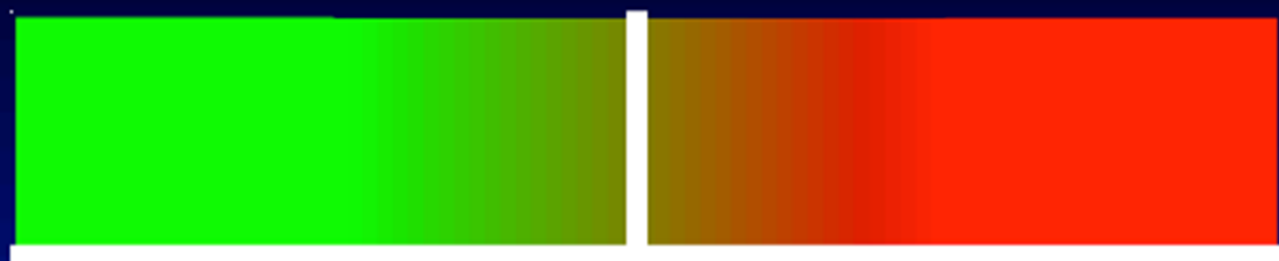
Reporting Test Results

- ▶ Positive:
At or above the administrative cutoff
- ▶ Negative:
Consistent with a drug-free specimen
- ▶ Negative:
But not consistent with a drug-free specimen

Ideal



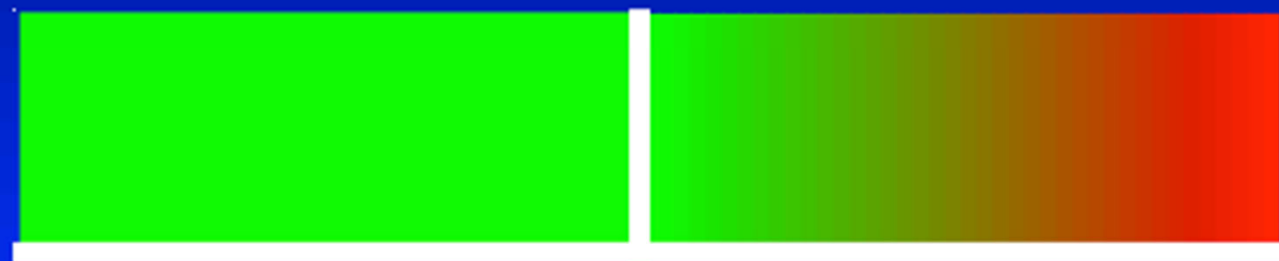
Balanced



Aggressive



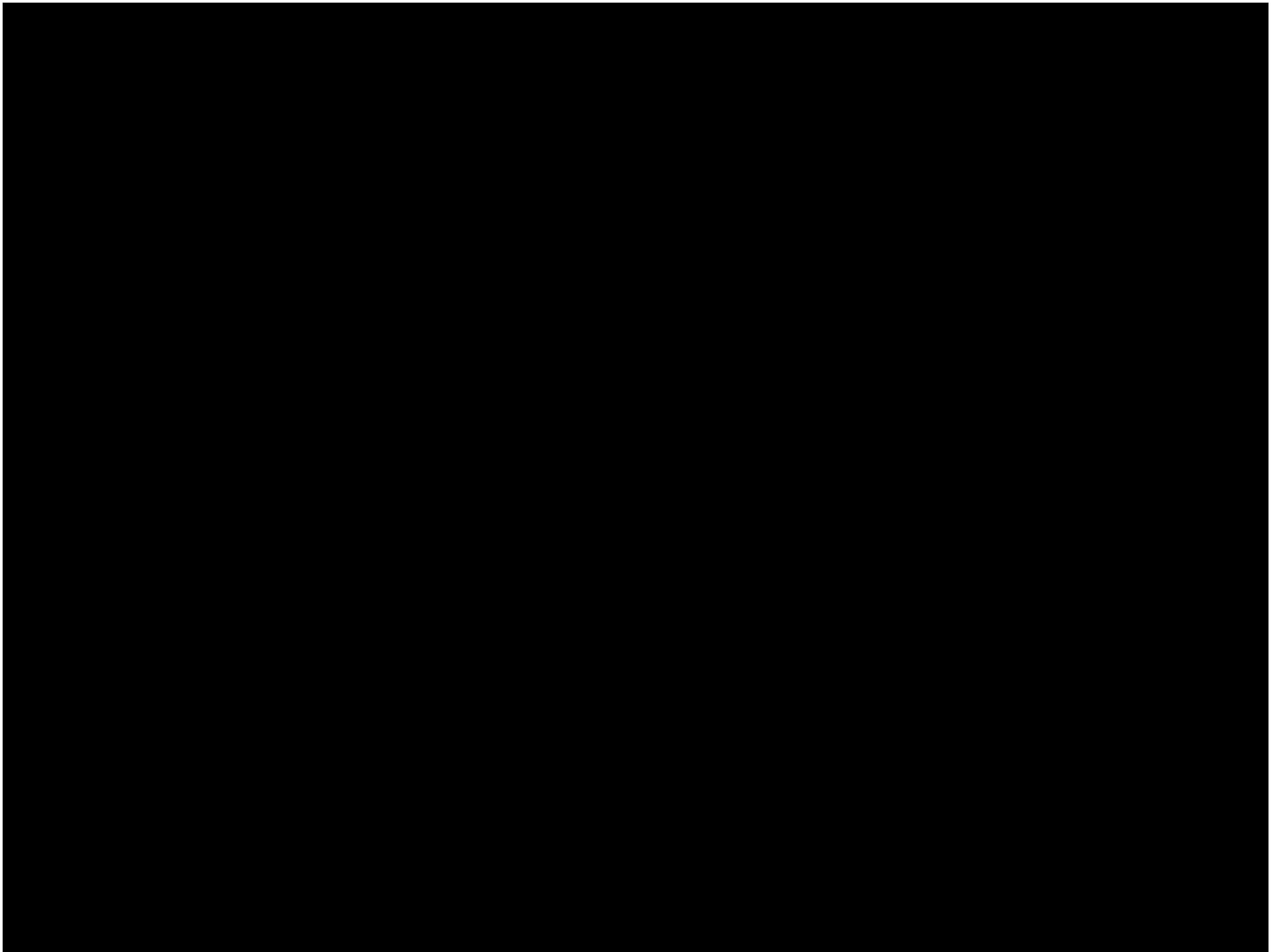
Conservative

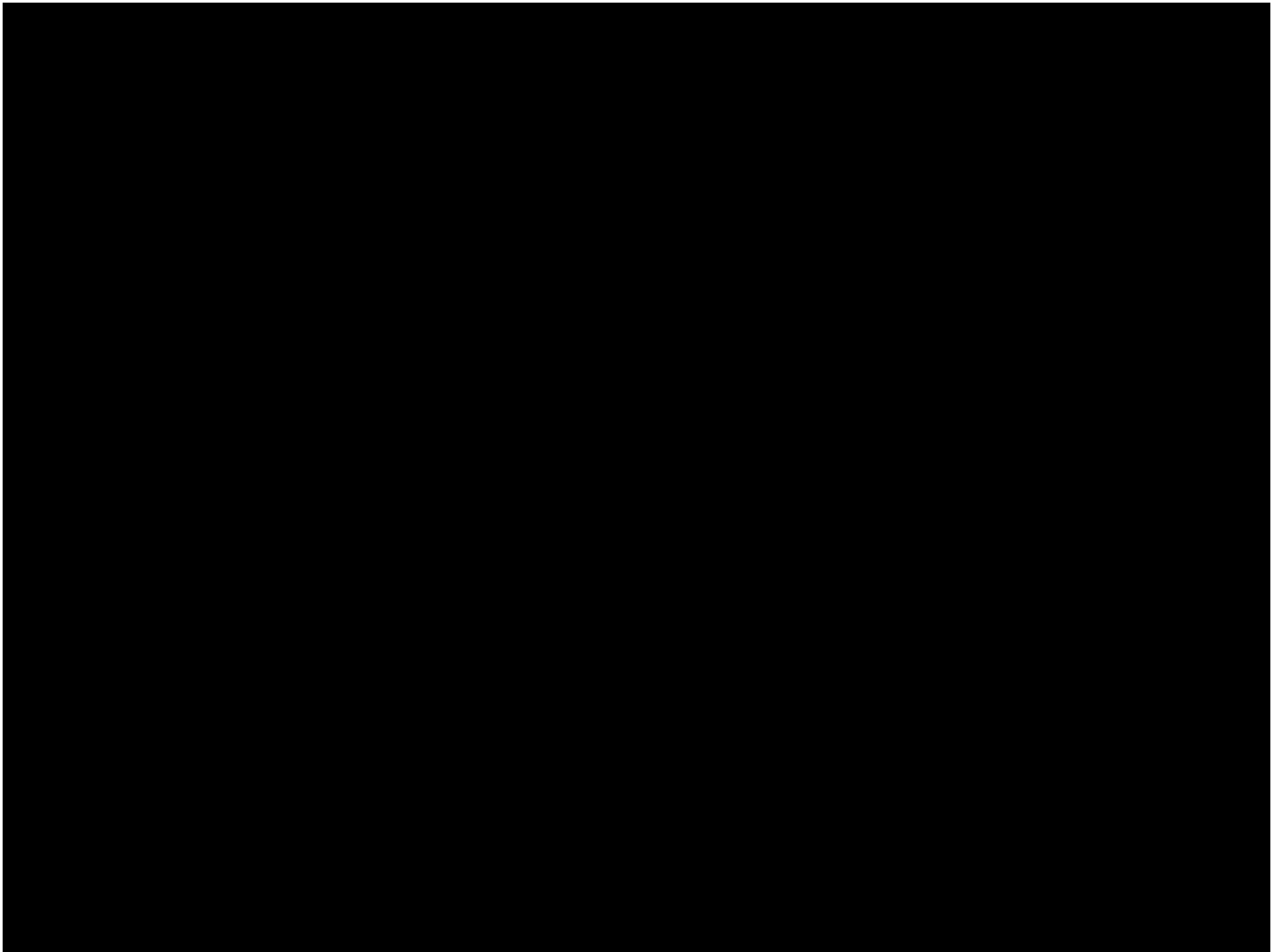


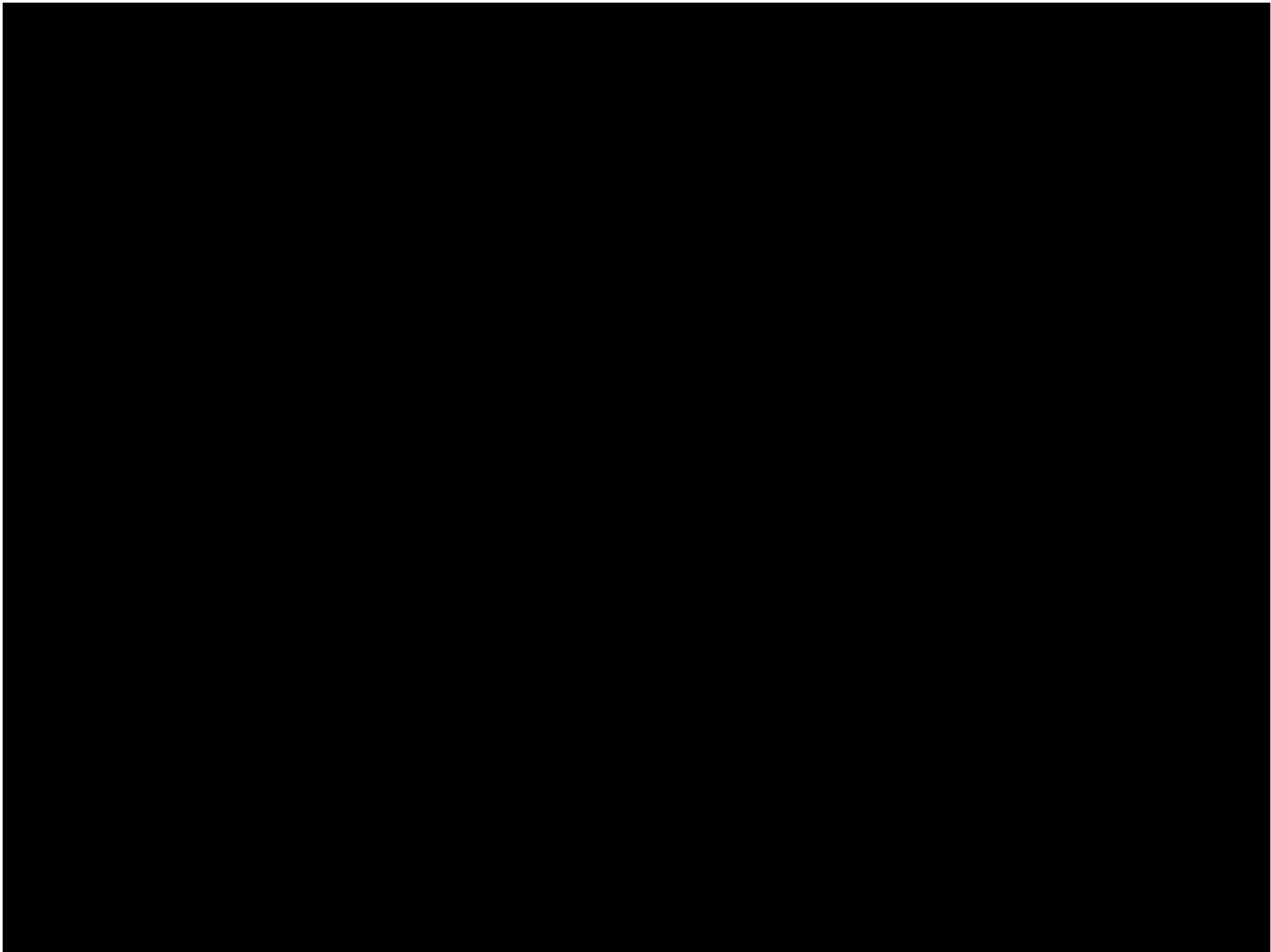
0

Cut-Off

High









Key Criteria for Laboratory Accuracy and Reliability

- ▶ Internal:

 - Personnel

 - Chain of custody

 - Methodologies

 - QA/QC

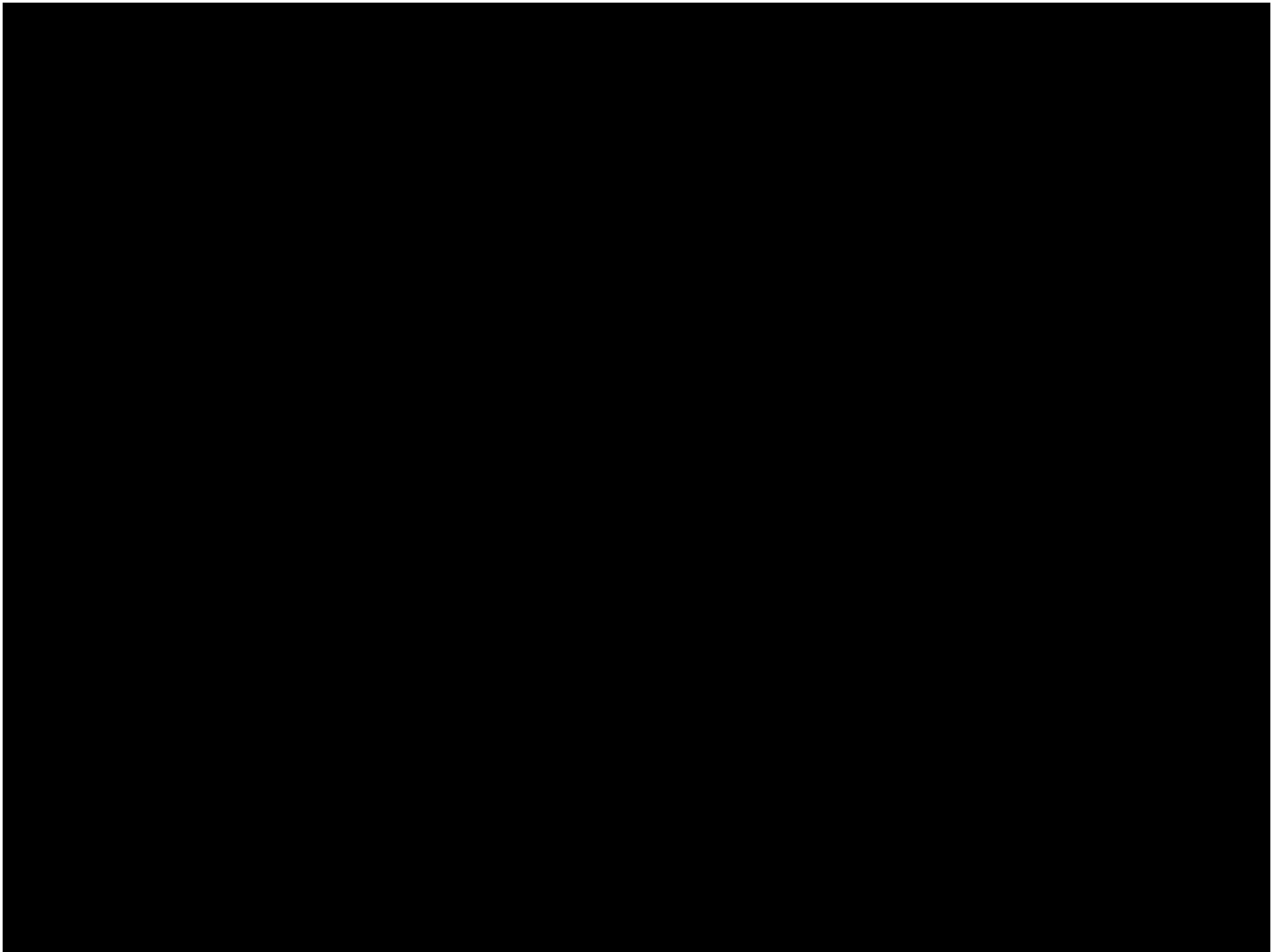
 - Recordkeeping

- ▶ External Oversight:

 - On-site Laboratory Inspections

 - Blind Proficiency Testing

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

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

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

▶ *Stahl 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

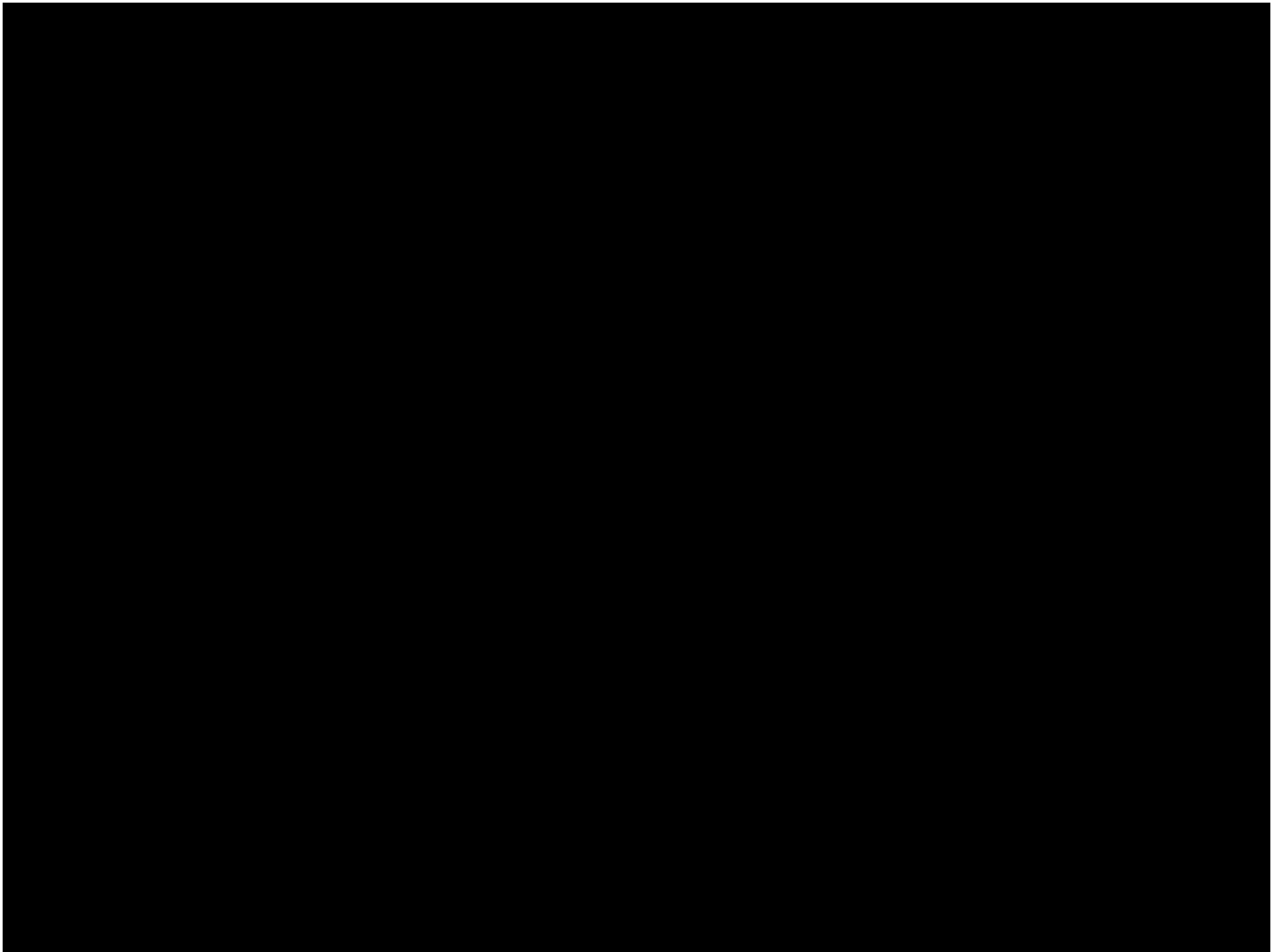
“The requirement of reasonable certainty is not met when some vital link in the chain of possession is not accounted for, because then it is as likely as not that the evidence analyzed was not the evidence originally received. Left to such speculation, the court must exclude the evidence.”

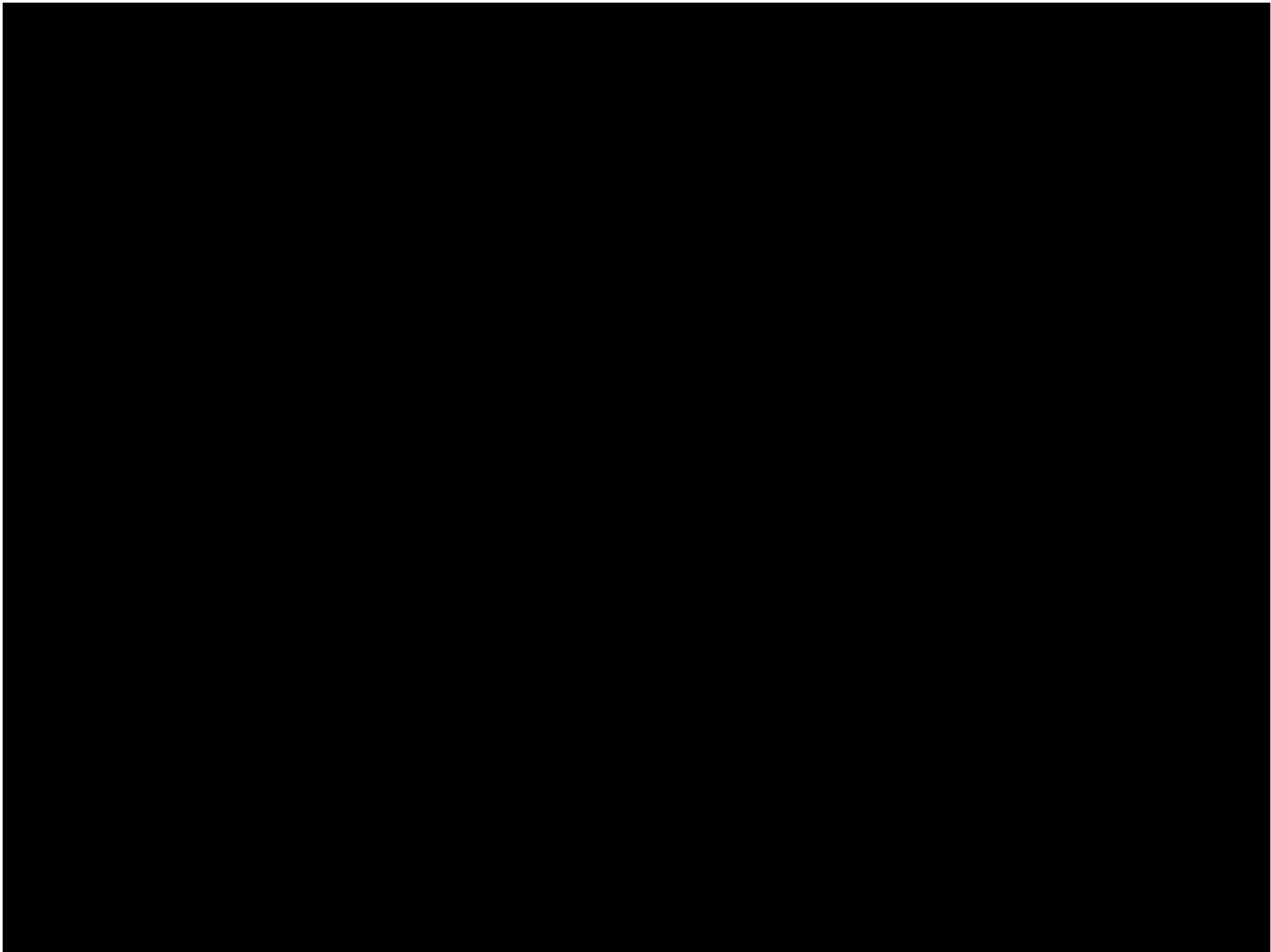
People v. Riser, 1956

“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

Challenges to Interpretation of Test Results





Poppy Seed Cases

▶ *Doe v. Roe (N.Y.App. 1990)*

Employer liable for not hiring applicant as testing didn't distinguish between unlawful opiate use and poppy seeds

Lab performed GC/MS for morphine/codeine, but not 6-MAM

▶ *Caputo v. Compuchem Laboratories (E.D.Penn. 1994)*

Lab has no duty to interpret result unless contractually obligated

Employee argued for 6-MAM, but the court held that the laboratory reported the results accurately

Poppy Seed Cases

▶ *Devine v. Roche Biomedical Laboratories (Me.S.Ct. 1995)*

Employee had no claim against lab for not interpreting

Lab may be liable to employer for negligent misrepresentation, and breach of contract, but not tort claims

2nd positive 2 days later @ 2174 ng/mL, laboratory doctor indicated impossible for poppy seeds, but earlier laboratory technical publication indicated as high as 5000 ng/mL possible for poppy seeds

Poppy Seed Cases

▶ *SmithKline Beecham v. Doe (Tx.S.Ct. 1995)*

Lab owed no duty to employee or employer to interpret result
Lab may be liable for tortious interference with prospective employment contract

Poppy Seed Cases

▶ *Price v. City of Bossier City (La.S.Ct. 1997)*

Disallowed medical malpractice claims by employee against MRO and hospital in post-accident test

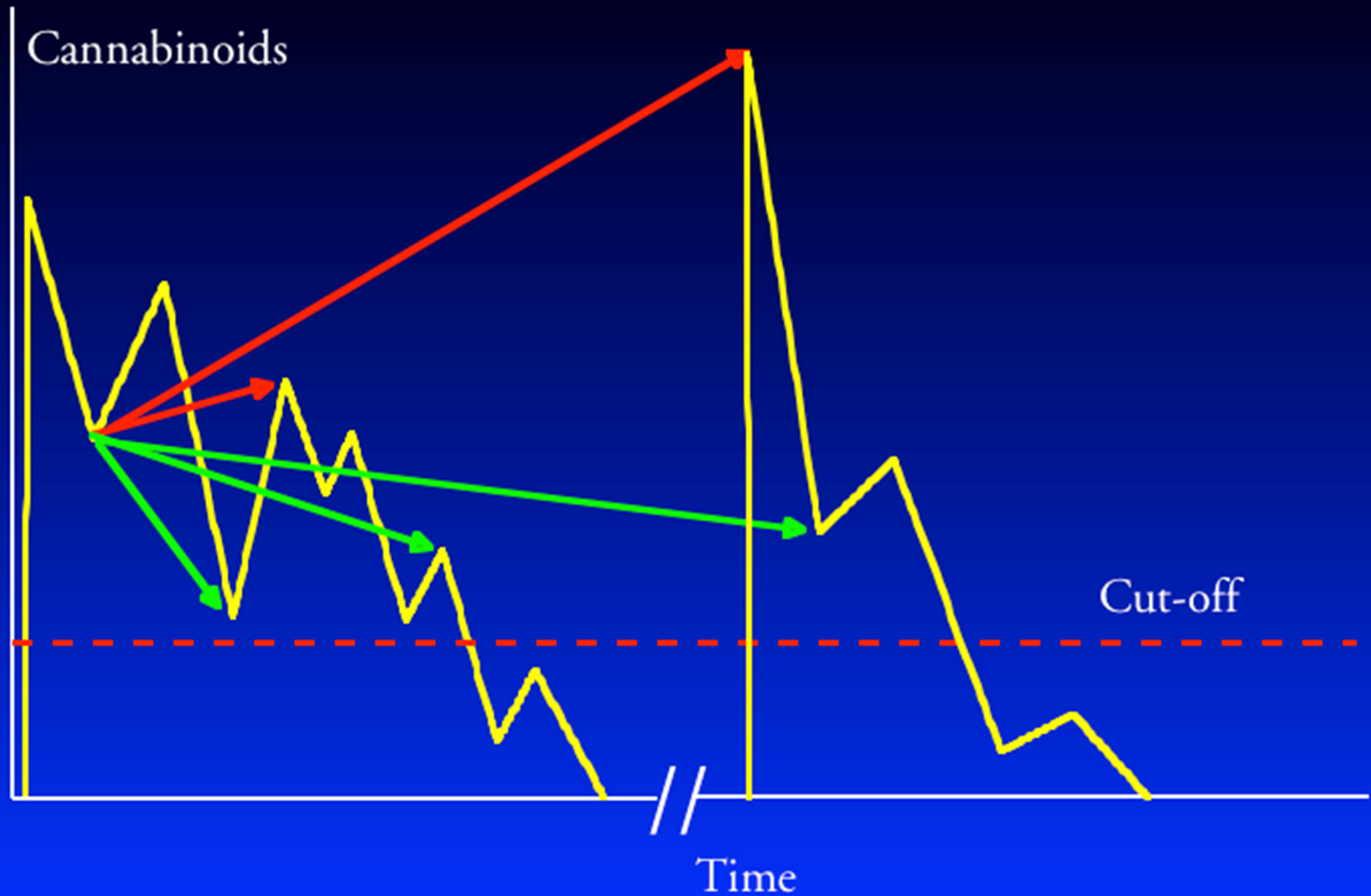
Employee was not a patient, testing is not receiving healthcare; a drug test cannot be analogized to a medical exam

434 ng/mL, donor noted consumption of poppy seeds, laboratory reported stated that <2000 ng/mL may be poppy seeds, but MRO reported as positive

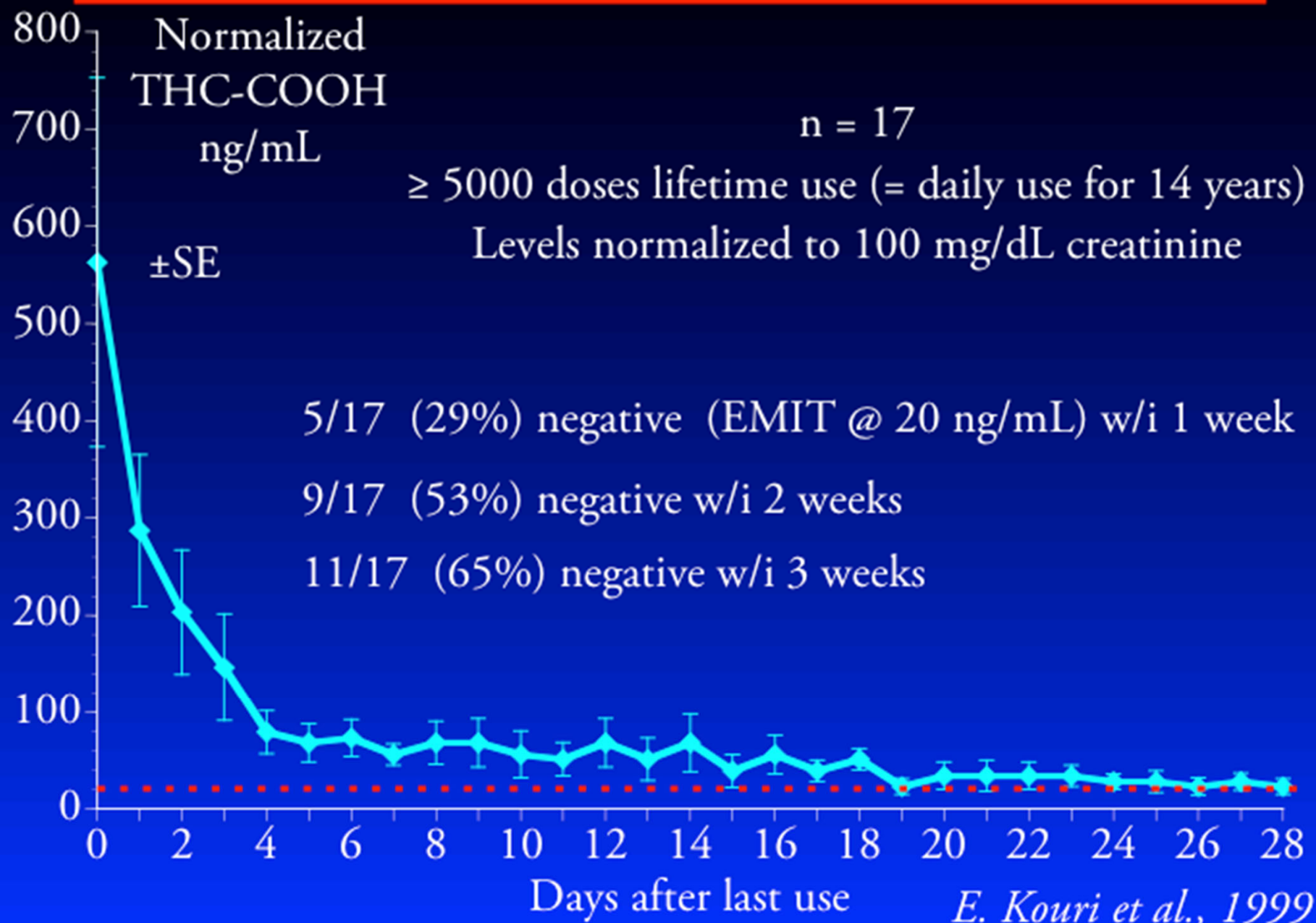
Court did note that alleged negligence was a violation of NIDA Guidelines



Renewed Use vs. Residual?

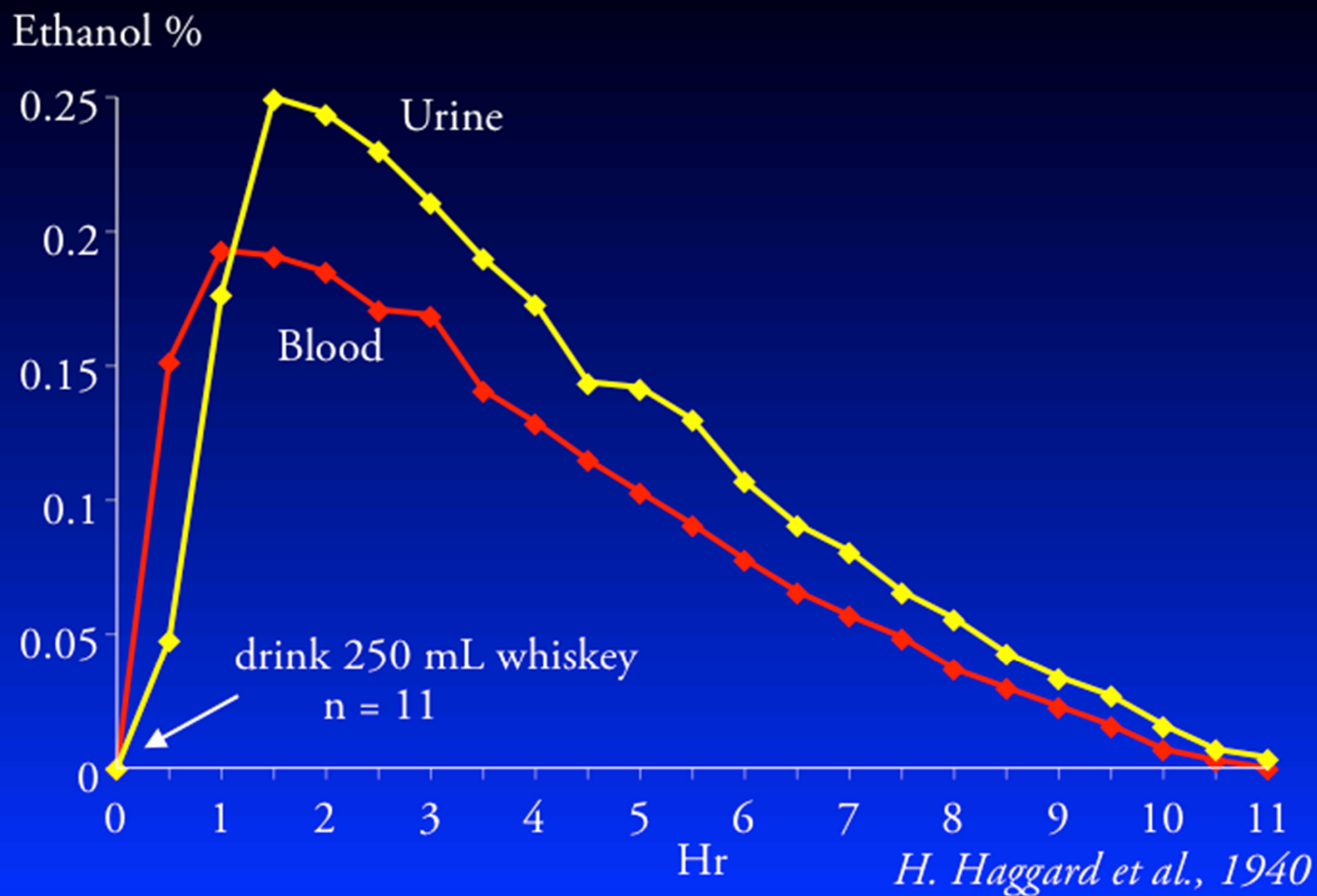


Creatinine Normalized THC-COOH in Chronic Users

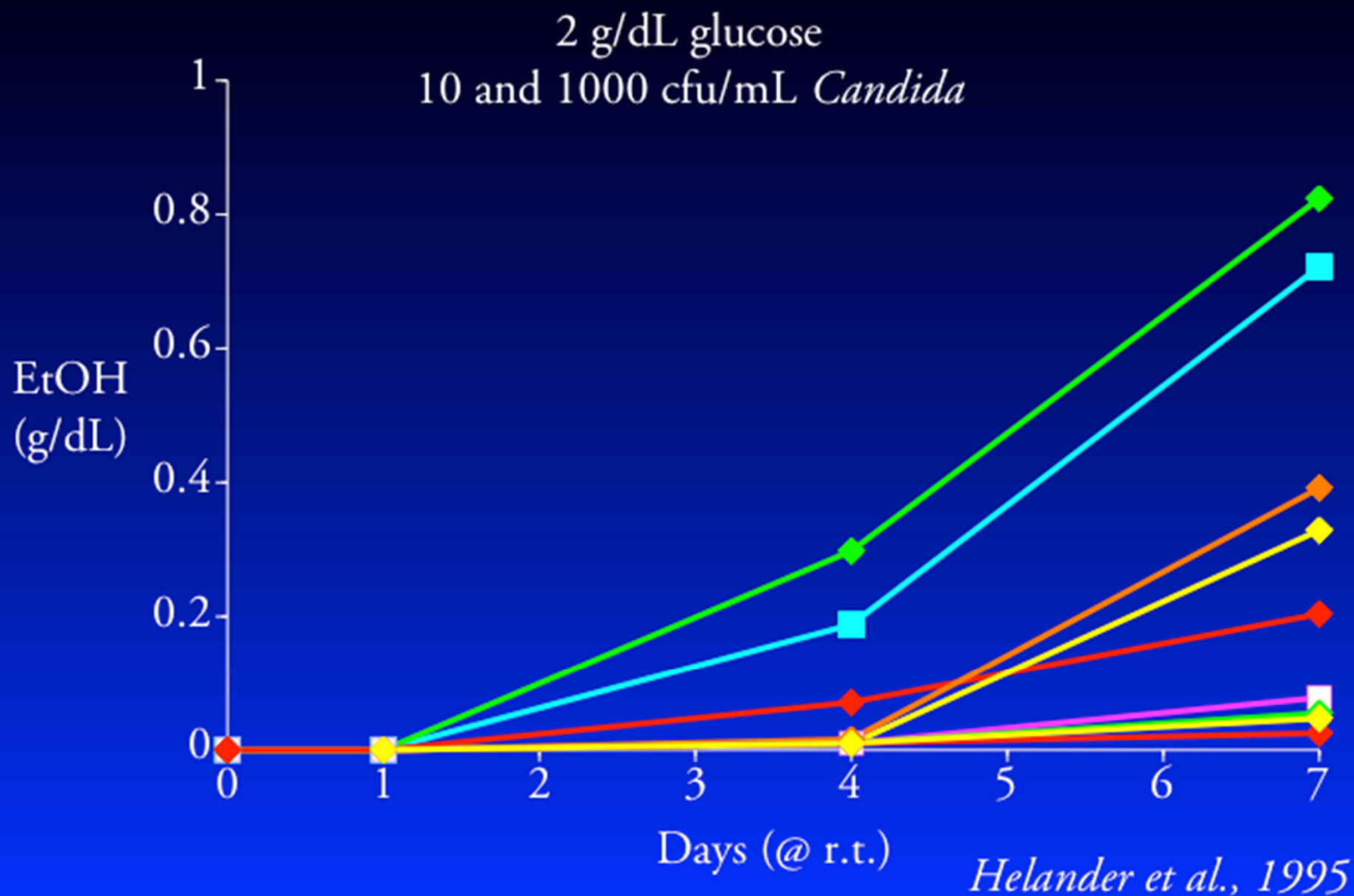




Urine, Blood EtOH Levels After Drinking



EtOH Formation in Glucose- and Candida-Spiked Urines



Ethanol Formation in Infected Urine

▶ Sugar in urine

and

▶ Infection

and

▶ At least one day storage at room temperature

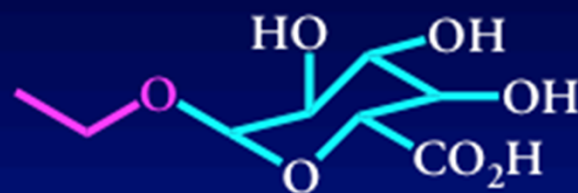
Markers of Ethanol Ingestion

Ethyl palmitate (16:0)

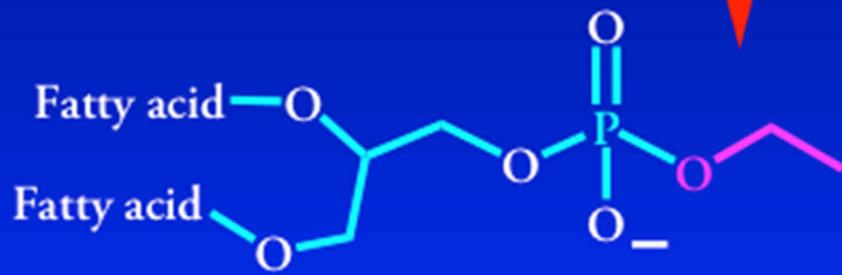


Fatty acid ethyl esters

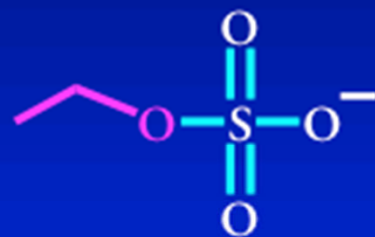
Ethanol



Ethyl glucuronide



Phosphatidyl ethanol



Ethyl sulfate

“Currently, the use of an EtG test in determining abstinence lacks sufficient proven specificity for use as primary or sole evidence that an individual prohibited from drinking, in a criminal justice or regulatory compliance context, has truly been drinking. Legal or disciplinary action based solely on a positive EtG, or other test discussed in this Advisory, is inappropriate and scientifically unsupportable at this time. These tests should currently be considered as potential valuable clinical tools, but their use in forensic settings is premature.”

SAMHSA, Substance Abuse Treatment Advisory, 5 (4), September 2006.

Although further research is needed before firm cutoffs for EtG can be established, sufficient research has been completed to reach the following conclusions:

- ▶ A “high” positive (e.g., >1,000 ng/mL) may indicate:
 - Heavy drinking on the same day or previously (e.g., previous day or two).
 - Light drinking the same day.
- ▶ A “low” positive (e.g., 500–1,000 ng/mL) may indicate:
 - Previous heavy drinking (previous 1–3 days).
 - Recent light drinking (e.g., past 24 hours).
 - Recent intense “extraneous” exposure (within 24 hours or less).
- ▶ A “very low” positive (100–500 ng/mL) may indicate:
 - Previous heavy drinking (1–3 days).
 - Previous light drinking (12–36 hours).
 - Recent “extraneous” exposure.

SAMHSA, The Role of Biomarkers in the Treatment of Alcohol Use Disorders, Advisory, 11 (2), 2012 Revision.

State v. Damiano, Cherokee County, 3/7/12

EtG: Positive (immunoassay: 500 ng/mL cutoff): >2,000 ng/mL

Confirmed (LC/MS/MS): EtG: 3,997 ng/mL

EtS: 622 ng/mL

“From the evidence presented, the Court concludes that the above testing for ETG to determine alcohol consumption to be a procedure which has reached a scientific stage of verifiable certainty for use in criminal cases.”

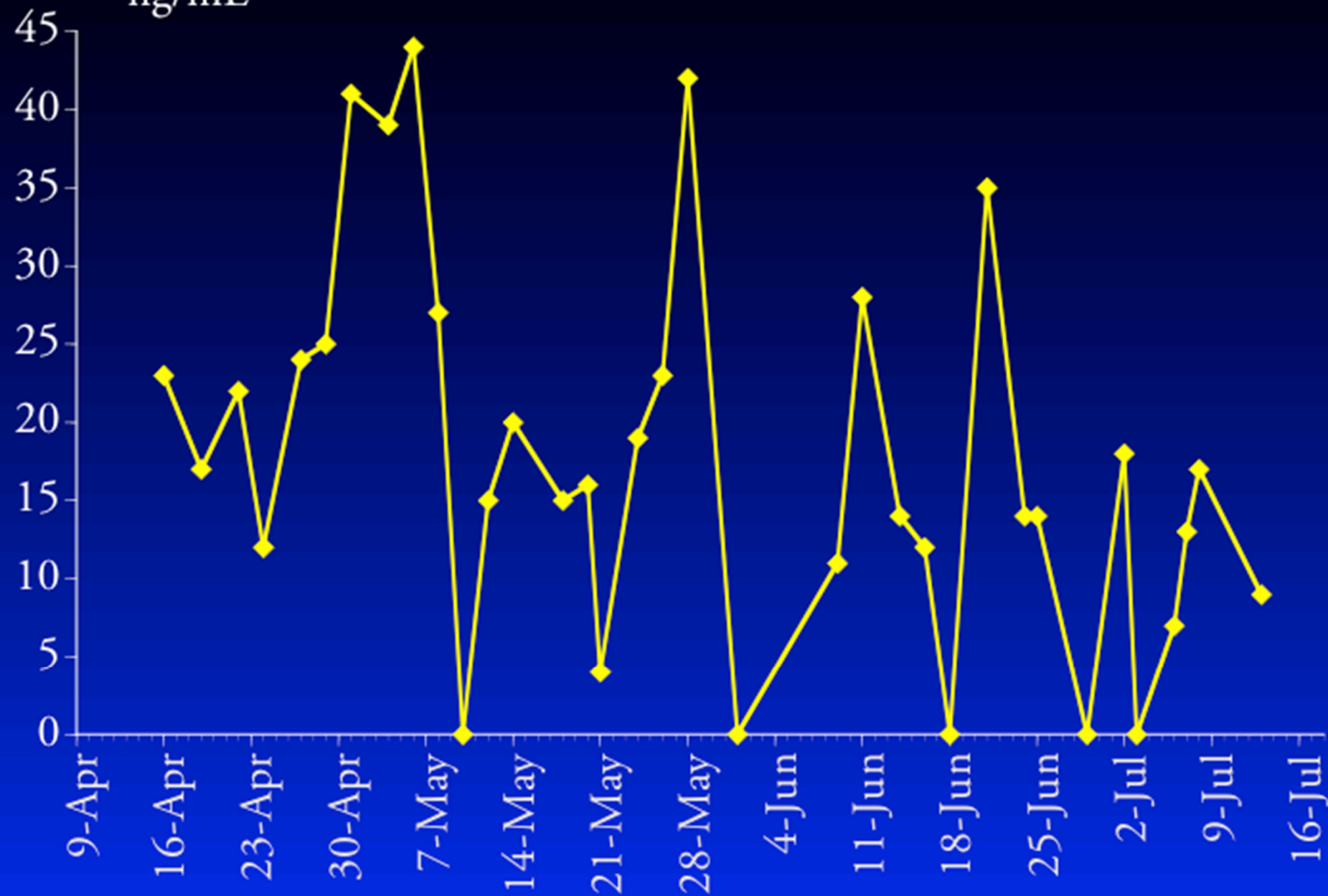
“Furthermore, the Court finds that the ETG testing employed by the Cherokee County DUI/Drug Court Lab meets the *Daubert* standard for admissibility in civil matters...”

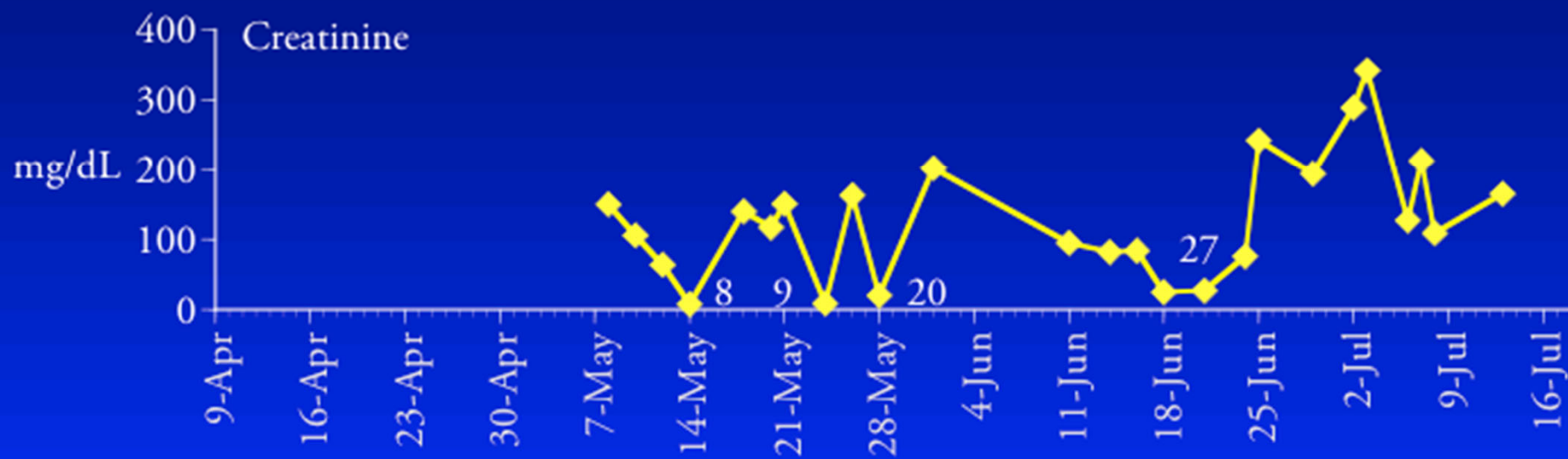
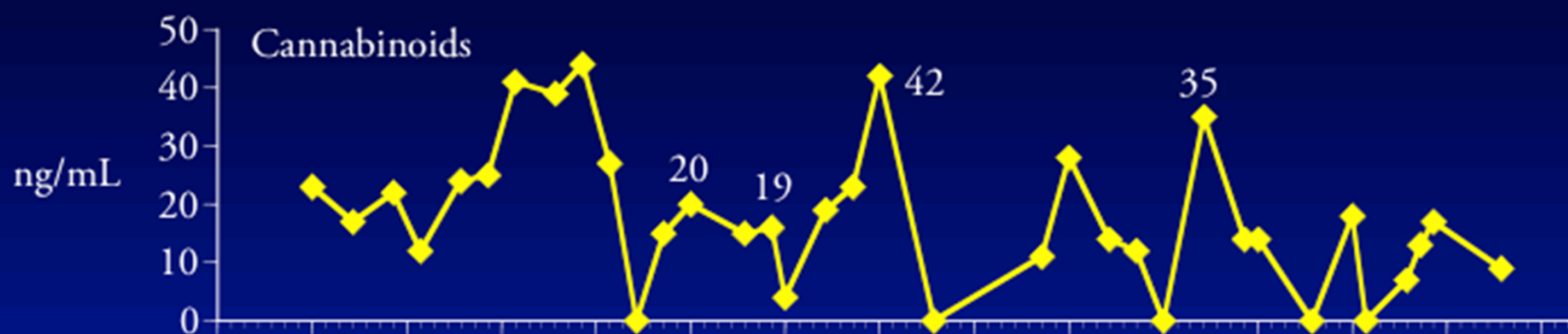
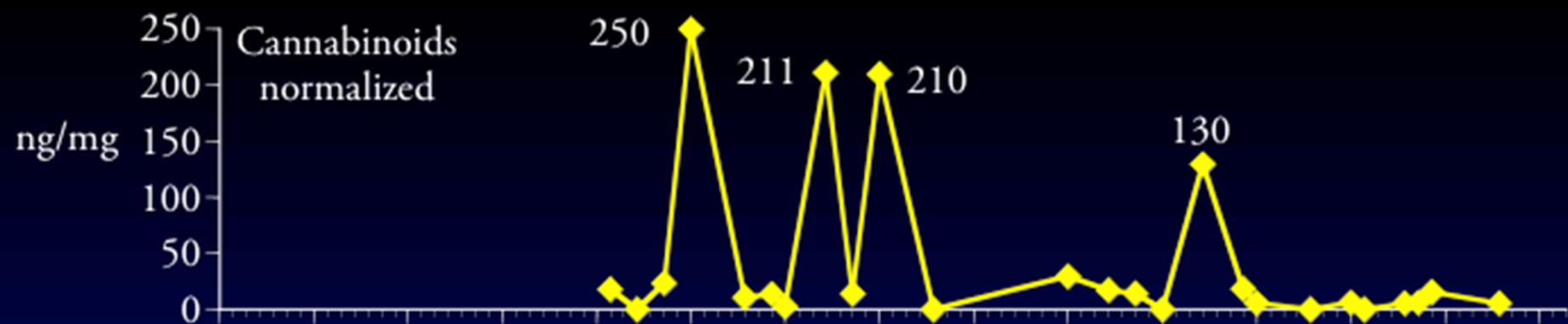




Cannabinoids

ng/mL





U.S. v. Klimek (SDNY, 3/2/04)

- ▶ Drug use violation of supervised release
- ▶ “Positive” on-site immunoassay (300 ng/mL cut-off)
- ▶ “Negative” laboratory screening immunoassay (181 ng/mL)
- ▶ “Negative” GC/MS confirmation (118 ng/mL BE)
- ▶ Creatinine 29.6 mg/dL
- ▶ s.g. 1.003 = “diluted, invalid”

U.S. v. Klimek (SDNY, 3/2/04)

“The results of a drug test ... shall be subject to confirmation only if the results are positive, ...”

“A drug test confirmation shall be a urine drug test confirmed using gas chromatography/mass spectrometry techniques ...”

18 USC §3563(e) (probation)

18 U.S.C. §3583(d) (supervised release)

“The program shall include such standards and guidelines as the Director may determine necessary to ensure the reliability and accuracy of the drug testing programs ...”

18 U.S.C. §3608

P.L. 103-332 Violent Crime Control and Law Enforcement Act of 1994

U.S. v. Klimek (SDNY, 3/2/04)

“However, the test result did not mean that Klimek did not have cocaine in his system.”

“Here, a GC/MS test was performed, and it confirmed that cocaine metabolite was present in Klimek’s system.”

“It should go without saying that it violates the terms of Klimek’s supervised release to have ANY cocaine metabolite in his system.”

“Even if I assume that the fixing of a “cut-off” level for GC/MS represents the Director’s conclusion that Klimek’s test result is questionable, that is simply a factor going to the weight of the drug testing evidence before me.”

U.S. v. Klimek (SDNY, 3/2/04)

“... there is nothing magical about the cut-off level selected by the AO; equally reputable organizations involved in drug testing specify lower cut-off levels.”

“The results of the specimen validity test strongly suggest an effort to beat the test and are most persuasively interpreted in that way.”

“And because I find that the results of the GC/MS test conducted on Klimek’s urine sample satisfy the Congressionally-mandated requirement that a contested drug test be “confirmed” using GC/MS ...”

U.S. v. Klimek, 2nd Cir., 6/8/05

“Even assuming that the cutoff level specified in the contract between the AO and STL was a “standard[]” or “guideline[]” of the sort contemplated by Section 3608—an assumption that is in tension with the uncontradicted testimony before the District Court that the cutoff level had no particular scientific significance—nothing in the language of that provision precludes a district court from considering the totality of the evidence before it when a confirmatory test result falls below this cutoff level.”

U.S. v. Klimek, 2nd Cir., 6/8/05

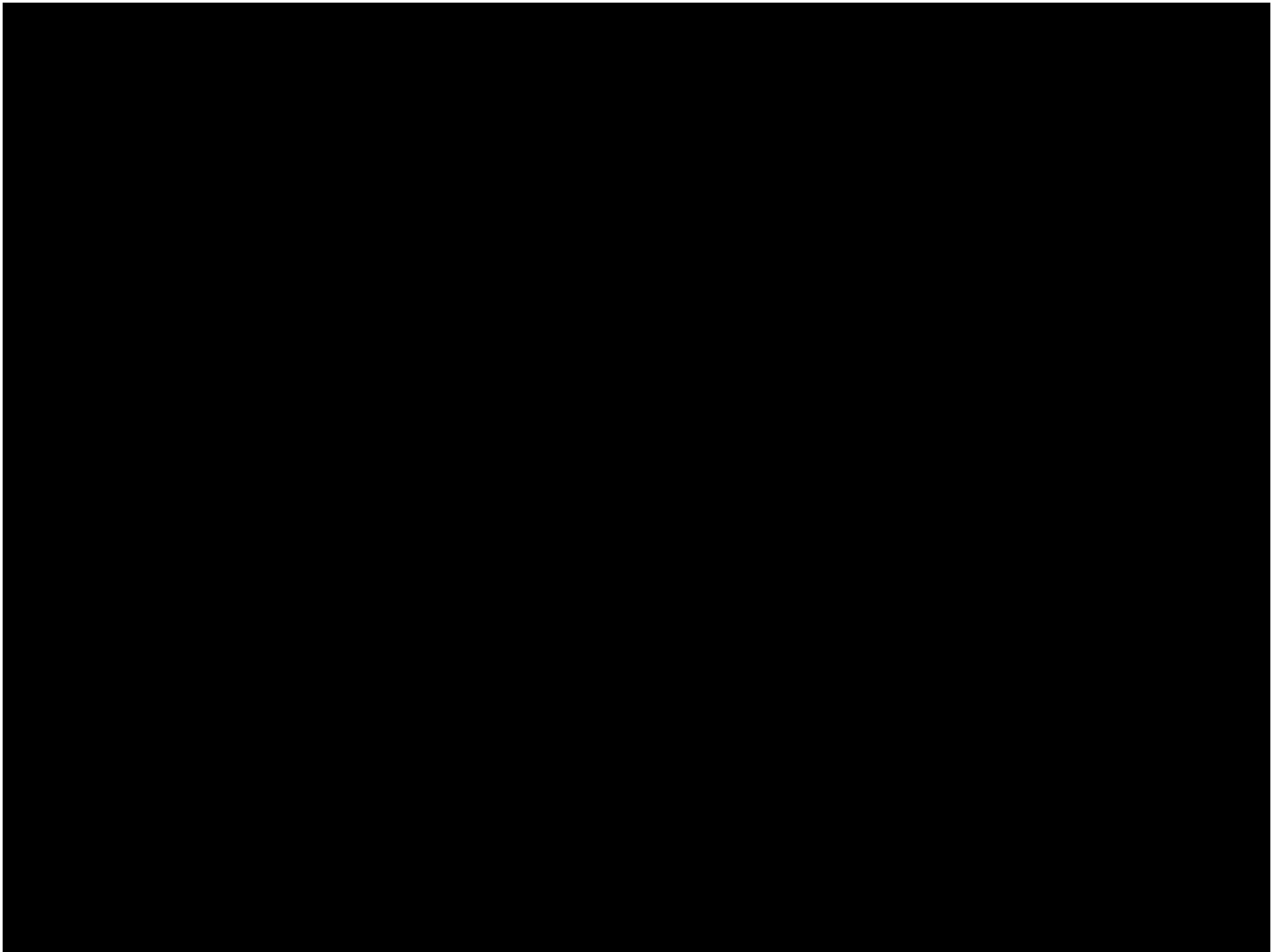
“Even more significantly, the confirmation test performed on defendant’s sample—once it was “normalized” for dilution—would have evinced a cocaine metabolite concentration of 406 nanograms per milliliter, well above the cutoff level of 150 nanograms per milliliter.”

U.S. v. Klimek, 2nd Cir., 6/8/05

“We need not decide at this time whether Sections 3583(d) and 3608 preclude a district court from revoking a defendant’s supervised release based solely on a test result that fell below the cutoff level.”

Utility of Urine Drug Concentrations

- ▶ Evidence of use (“negative” vs. “no drug”)
- ▶ “Unconfirmed positive” vs. “false positive”
- ▶ Consistency of results with claims of donor
- ▶ Renewed use vs. residual
- ▶ Likelihood of dosing scenarios
- ▶ Likelihood of impairment



6th Amendment: Right to Confrontation

Hearsay exception:

- ▶ Public records

Police reports, birth certificates, ...

- ▶ Business records

Lab reports

U.S. v. Grandlund (5th Cir. 1995)

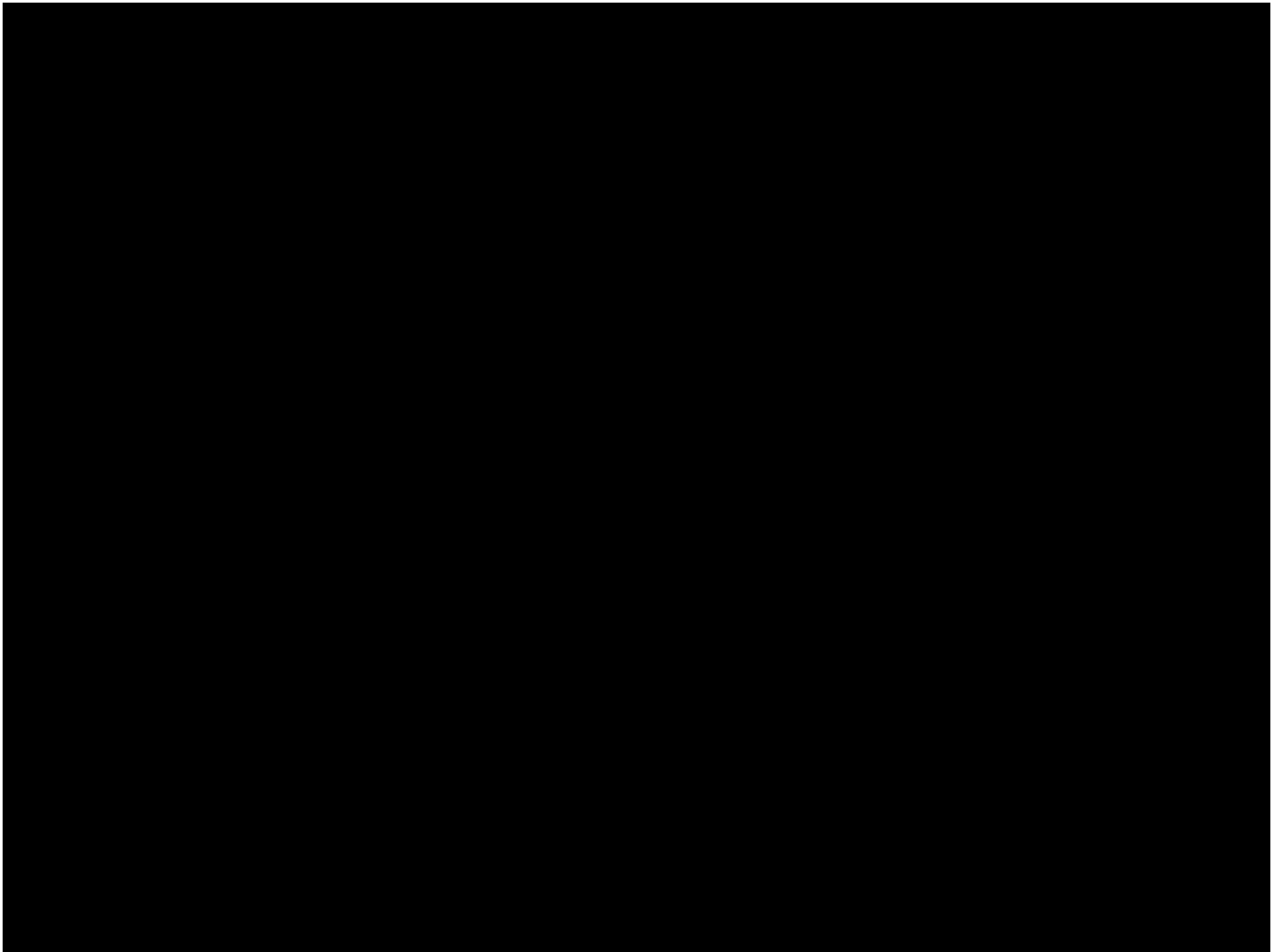
Must provide:

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

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



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

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)

“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.)

Why Your Testing is Accurate and Reliable

- ▶ Trained/certified collectors, operators
- ▶ Chain of custody throughout operations
- ▶ Use established and recognized methods
 - FDA clearance
 - Extensive peer-reviewed publications (international)
 - Legal recognition (at level of U.S. Supreme Court, 1989)
- ▶ Follow test system manufacturer specifications
 - Calibration, daily controls, environmental/storage conditions, instrument maintenance
- ▶ External oversight
 - Confirmation testing, proficiency testing, inspections

- ▶ 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

