No. 23-934 *** Capital Case ***

IN THE

Supreme Court of the United States

ARELI ESCOBAR,

Petitioner,

v.

STATE OF TEXAS,

Respondent.

On Petition for a Writ of Certiorari to the Texas Court of Criminal Appeals

BRIEF OF THE INNOCENCE NETWORK AND THE CENTER FOR INTEGRITY IN FORENSIC SCIENCES, INC. AS AMICI CURIAE IN SUPPORT OF PETITIONER

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Other Authorities
Al Baker, Indicting DNA Profiles Is Vital in Old Rape Cases, N.Y. Times (Oct. 18, 2009)

Kimberly Cogdell Boies, Misuse of DNA Evidence is Not Always a Harmless Error: DNA Evidence, Prosecutorial Misconduct, and Wrongful Conviction, 17 Tex. Wesleyan L. Rev. 403 (2011)	9
Brandon L. Garrett & Peter J. Neufeld, Invalid Forensic Science Testimony and Wrongful Convictions, 95 Va. L. Rev. 1 (2009)	21
Innocence Project, Charles Irvin Fain, https://innocenceproject.org/cases/charles -irvin-fain/	21
Innocence Project, DNA Exonerations in the United States, https://innocenceproject.org/dna-exonerations-in-the-united-states/	.6
Michael Johnson, The "CSI Effect": TV Crime Dramas' Impact on Justice, 15 Cardozo Pub. L. Pol'y & Ethics J. 385 (2017)	.7
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Nat'l Comm'n on Forensic Sci., Views of the
Commission Ensuring that Forensic
Analysis Is Based Upon Task-Relevant
Information (Dec. 8, 2015),
https://www.justice.gov/archives/ncfs/file/
818196/download
President's Council of Advisors on Science
and Technology, Forensic Science in
Criminal Courts: Ensuring Scientific
Validity of Feature-Comparison Methods
(Sept. 2016),
https://obamawhitehouse.archives.gov/sit
es/default/files/microsites/ostp/PCAST/pc
ast_forensic_science_report_final.pdf22
Rich Press, DNA Mixtures: A Forensic
Science Explainer, National Institute of
Standards and Technology (Apr. 3, 2019),
https://www.nist.gov/feature-stories/dna-
mixtures-forensic-science-explainer;
Michael B. Smith, The Forensic Analysis of
Footwear Impression Evidence, 11
Forensic Sci. Commc'ns no. 3 (2009),
https://archives.fbi.gov/archives/about-
us/lab/forensic-science-
communications/fsc/july2009/review21

INTEREST OF THE AMICI CURIAE1

The **Innocence Network** (the Network) is an association of independent organizations dedicated to providing *pro bono* legal and investigative services to prisoners for whom evidence discovered post-conviction can provide conclusive proof of innocence. The Network's 68 current member organizations represent hundreds of prisoners with innocence claims in 49 States, the District of Columbia, and Puerto Rico, as well as in other countries around the world.²

The Network and its members are dedicated to improving the accuracy and reliability of the criminal justice system in future cases. Drawing on lessons from cases in which the system has convicted innocent persons, the Network advocates study and reform designed to enhance the truth-seeking functions of the criminal justice system to ensure that future wrongful convictions are prevented.

The Center for Integrity in Forensic Sciences, Inc. ("CIFS") is a national non-profit organization incorporated in Wisconsin. CIFS is the first non-profit organization in the United States to focus exclusively on strengthening forensic science in order to improve the reliability and safety of criminal prosecutions. Its educational and service goals span all facets of the judicial system and experiential education of tomorrow's lawyers and scientists.

¹ No counsel for any party authored this brief in whole or in part, and no party, counsel, or person other than *amici*, their members, and their counsel contributed money to fund the preparation or submission of this brief. Counsel of record for all parties received timely notice of *amici*'s intent to file this brief.

² The Appendix to this brief lists the member organizations of the Network for amicus brief purposes.

Amici have a strong interest in the questions presented by the petition for a writ of certiorari. Amici have repeatedly seen first-hand how DNA evidence, with its unprecedented forensic power and influence on juries, acts as a double-edged sword in the criminal justice system. When reliably developed and honestly presented, it can decisively establish innocence or guilt in a But when a conviction is secured criminal case. through DNA evidence shown to be false, the risk of wrongful conviction is intolerably high—especially in a death-penalty case, like this one, with no other reliable incriminating evidence. Indeed, the error here was so egregious and obviously material that the government itself has made a rare concession of error. The decision of the Texas Court of Criminal Appeals (CCA) to disregard that concession and reject the Texas habeas court's meticulously documented recommendation to grant relief is an egregious betrayal of the ideals of fair and accurate criminal justice that amici seek to advance—especially in light of this Court's previous GVR in the case.

The Network and CIFS therefore write to offer their perspective on why relief from this Court is—for a second time—urgently warranted.

INTRODUCTION AND SUMMARY OF THE ARGUMENT

"Modern DNA testing can provide powerful new evidence unlike anything known before." *Dist. Attorney's Office For Third Judicial Dist. v. Osborne*, 557 U.S. 52, 62 (2009). When used properly, this evidence has the potential to decisively advance the truth-seeking function of trials. But the power of DNA evidence carries significant risks when such evidence is used improper-

ly. There is growing recognition that jurors are at risk of viewing DNA testing as infallible, with little regard to how it has been prepared or presented. "Given the persuasiveness of such evidence in the eyes of the jury," this Court has emphasized, "it is important that [DNA evidence] be presented in a fair and reliable manner" to avoid wrongful convictions. *McDaniel v. Brown*, 558 U.S. 120, 136 (2010) (per curiam).

This case shows why. Petitioner Areli Escobar was convicted and ultimately sentenced to death based on DNA testing that was later shown by the defendant, and conceded by the prosecution, to be unreliable. Indeed, the purported DNA evidence was so flawed that the municipal forensics lab that collected, analyzed, and provided the crucial testimony on the DNA was shuttered for violations of professional standards so egregious and intractable that the lab could not be reopened.

The lab's misconduct was on full display in Mr. Escobar's case. The DNA evidence was exposed to severe contamination risks at the lab and the analysts assigned to this case repeatedly ignored best practices and engaged in bias-driven manipulation of the testing to incriminate Mr. Escobar. The prosecution used this false testing as the centerpiece of its case, and one juror stated publicly that the DNA evidence took him off the fence and convinced him to join a guilty verdict. As even Mr. Escobar's prosecutors now recognize, no one should be sentenced to death based on a trial that rested on such fundamentally flawed evidence.

The already significant risk that Mr. Escobar was wrongfully convicted becomes enormous when one considers that the other forensic evidence introduced against him was *also* unreliable. The shoe-print analy-

sis offered by the prosecution was unscientific and showed merely that a tread pattern on the crime scene resembled a pattern found on thousands of other shoes in the area, including one of Mr. Escobar's. And the supposed fingerprint "match" to Mr. Escobar was the result of biased mid-trial retesting, involved a low-quality latent print, and could not scientifically be described as a "match" in any event.

The Texas habeas court recognized all of this and correctly recommended habeas relief in a thorough, lengthy opinion. As this Court knows, the State *agreed* with that recommendation and urged the CCA to issue the writ. Yet, displaying a shockingly casual approach to the potential execution of an innocent man, the CCA brushed off the concededly false DNA evidence at the heart of the prosecution's case as not "material."

This Court's GVR order gave the CCA a second chance to implement the habeas court's findings, at the prosecution's request, and prevent the execution of a likely innocent man. But the CCA was unmoved by this Court's order and again affirmed Mr. Escobar's death sentence even though it was obtained through the introduction of false evidence.

Now that the CCA has refused to reconsider its decision despite this Court's order, only this Court can prevent the execution of Mr. Escobar for a crime he likely did not commit. Amici respectfully urge this Court to grant certiorari and set the case for argument.

ARGUMENT

I. DNA evidence can have dangerously outsized influence on jurors, and the false DNA evidence introduced against Mr. Escobar was enormously prejudicial.

DNA testing, when carried out correctly, brings enormous benefits to the criminal justice system. But its power carries with it significant risks from incompetence and abuse. So when false DNA evidence is the cornerstone of a prosecution, the risk of wrongful conviction is severe.

That was the case here. Mr. Escobar was convicted based on DNA evidence that was unreliable by all relevant measures. The CCA's contrary conclusion and reasoning remain unsupportable on the record assembled at the habeas court. The CCA decision continues to ignore the significant contamination problems that the habeas court identified with the DNA samples collected from Mr. Escobar's shoes. The CCA decision continues to ignore the fact that, as the habeas court recognized, the DNA samples collected from Mr. Escobar's Mazda could not be reliably tested because of the number of contributors. And the CCA decision continues to ignore the power DNA evidence has on jurors—as stated explicitly by one juror in this case.

- A. Misuse and misunderstanding of DNA evidence has been shown to lead to wrongful convictions.
- 1. DNA testing has "emerged as the gold standard for forensic evidence." Joel D. Lieberman, et al., Gold Versus Platinum: Do Jurors Recognize the Superiority and Limitations of DNA Evidence Compared to Other Types of Forensic Evidence?, 14 Psychol. Pub. Pol'y & L.

27, 52 (2008) (Lieberman). And not without reason—used properly, it offers powerful evidence of guilt or innocence.

DNA testing "has become essential in solving cold cases" that other techniques cannot crack. Al Baker, Indicting DNA Profiles Is Vital in Old Rape Cases, N.Y. Times https://ww (Oct. 18, 2009), w.nytimes.com/2009/10/19/nyregion/19dna.html. Facing the statute-of-limitations deadlines in unsolved crimes, prosecutors "devised the novel strategy of indicting the [perpetrator's] DNA," and have ultimately established links to specific defendants and obtained numerous convictions through DNA testing. Id. DNA has also played a decisive role exonerating wrongfully convicted defendants. According to the Innocence Project, DNA evidence has been responsible for some 375 post-conviction exonerations since 1989, including twenty-one people on death row. Innocence Project, DNA Exonerations in the United States, https:// innocenceproject.org/dna-exonerations-in-the-united-st ates/.

There are concerning signs, however, that jurors' rational trust in DNA evidence sometimes gives way to blind faith. DNA testing is "often assumed" by jurors "to have a special aura of certainty and mystic infallibility." Lieberman, *supra*, at 52. That aura reflects not just real results from high-profile cases in the news, but also the fact that DNA forensics have "become popularized in television crime dramas." *Id.* Those shows "portray[] forensic science as a sort of high-tech magic, solving crimes very quickly, and seemingly without error"—indeed, so exaggerated are these representations that one forensic scientist "estimates that 40% of the forensic 'science' depicted [in a representative television pro-

gram] does not exist, and even when the techniques are real, they are performed with an accuracy that crime lab personnel can only dream of." Michael Johnson, *The "CSI Effect": TV Crime Dramas' Impact on Justice*, 15 Cardozo Pub. L. Pol'y & Ethics J. 385, 386 (2017). Commentators fear that jurors have such an unrealistic view of DNA forensics that they are both more inclined to acquit when DNA evidence is *not* introduced and are also more inclined to convict when it *is* introduced, regardless of the evidence's quality. *Id.* at 386-88.

One study found that "jurors, on average, rated DNA evidence as 95% accurate, and [DNA evidence] was rated as 94% persuasive of a suspect's guilt." Lieberman, *supra*, at 52-53. Moreover, jurors do not lose their almost complete confidence in DNA testing even when it is shown to be unreliable. *Id.* at 45. "For example, research has demonstrated that providing jurors with numbers reflective of laboratory error rates has had little or no effect on their eventual judgments." *Id.* Even after they are exposed to "damaging cross-examination testimony and jury instructions detailing how to prudently use scientific evidence testimony, jurors were still more likely to convict when DNA evidence existed compared to [virtually all] other types of evidence." *Id.* at 44.

The upshot is that DNA evidence may be not only "the most powerful" form of forensic evidence yet developed, but also "the most troubling." Lieberman, *supra*, at 33 (citation omitted). Because "the persuasiveness of DNA evidence is so great," when it "is introduced against an accused at trial, the prosecutor's case can take on an aura of invincibility." *People v. Wright*, 25

N.Y.3d 769, 783 (2015) (citation omitted).³

2. Unfortunately, however, DNA evidence is *not* infallible.

Start with the fact that DNA "evidence is susceptible to the same problems [as] other" forensic evidence—issues like "chain of custody" gaps, "contamination," and "mix-up of samples." Lieberman, *supra*, at 52. And there is no question that forensic science compromised by these kinds of errors causes wrongful convictions. Ironically, the best proof comes from DNA exoneration cases. One study concluded that, in 86 DNA exoneration cases, "forensic science testing errors were the second leading cause of wrongful convictions (found in 63% of cases), falling behind only eyewitness misidentifications (71% of the cases)." *Id.* at 30.

DNA evidence is also highly complex and entails difficult interpretive work. "[T]wo different analysts at different labs may draw different conclusions" from the same DNA sample. Kimberly Cogdell Boies, *Misuse of DNA Evidence Is Not Always a Harmless Error: DNA Evidence, Prosecutorial Misconduct, and Wrongful Conviction,* 17 Tex. Wesleyan L. Rev. 403, 409 (2011) (Boies). There is therefore a significant "margin for error." *Id.* That margin becomes larger when the analysis concerns "DNA mixtures," where the sample contains the DNA of multiple persons. *See generally* Rich Press, *DNA Mixtures: A Forensic Science Explainer*, National Institute of Standards and Technology (Apr. 3, 2019), https://www.nist.gov/feature-stories/dna-

³ See also, e.g., United States v. Bonds, 12 F.3d 540, 567-68 (6th Cir. 1993) (similar); State v. Phillips, 430 S.C. 319, 329 (2020) (similar); Whack v. State, 433 Md. 728, 732 (2013) (similar); State v. Pappas, 256 Conn. 854, 889 (2001) (similar); Commonwealth v. Curnin, 409 Mass. 218, 219 (1991) (similar).

mixtures-forensic-science-explainer; see also, e.g., Pet. App. 112a-114a. Jurors appear largely unaware of these interpretative challenges and the concomitant risks of error. Boies, supra, at 409.

Moreover, even where the underlying analysis is sound, misinterpretation of DNA analysis can vastly inflate perception of guilt. The classic example of this is the "prosecutor's fallacy," which, as this Court has explained, occurs when evidence showing that the "probability a member of the general population would share the same DNA is 1 in 10,000 (random match probability)" is confused with the proposition that "there is only a 1 in 10,000 chance that someone other than the defendant is the source of the DNA found at the crime scene." McDaniel, 558 U.S. at 128. That then prompts a potential "further error" of "equat[ing] source probability with probability of guilt, unless there is no explanation other than guilt for a person to be the source of crime-scene DNA," and which "may result in an erroneous statement that, based on a random match probability of 1 in 10,000, there is a 0.01% chance the defendant is innocent or a 99.99% chance the defendant is guilty." Id.

The danger posed by outright manipulation of the analysis is yet more serious. There is widespread evidence of intentional misconduct in the labs used by police and prosecutors to analyze DNA. There are many "documented cases of crime lab fraud" in recent history, including "national reports of widespread allegations of fraud at the FBI crime lab, shoddy practices, and false reports by forensic scientists at various state crime labs." Lieberman, *supra*, at 31-32, 45. That fraud can raise systemic questions tainting large numbers of convictions secured through DNA evidence.

Equally significant, and perhaps even more widespread, is the problem of biased analysis arising from the relationship between forensics labs and the government. Id. at 45. Best practices, such as those promulgated by the National Commission on Forensic Science, require that lab technicians "should rely solely on task-relevant information when performing forensic analyses." Nat'l Comm'n on Forensic Sci., Views of the Commission Ensuring that Forensic Analysis Is Based Upon Task-Relevant Information 1 (Dec. 8, 2015), https: //www.justice.gov/archives/ncfs/file/818196/download. Despite this, "many forensic labs receive transmittal letters with each sample submitted to the lab detailing the investigator's version of the crime, assuming the suspect is guilty, and implying that the scientist merely needs to confirm what the detective already knows." Lieberman, supra, at 45. This practice can lead to harmful "observer effects," in which lab analysts' knowledge of the prosecution's theory of the case improperly affects their analysis, consciously or not. *Id*.

Accordingly, misuse of DNA analysis poses a significant risk to the integrity of criminal trials given how jurors' confidence in DNA testing often slips into blind faith. DNA testing simply does not justify that kind of automatic deference. This Court has therefore correctly stressed the overriding importance that DNA evidence "be presented in a fair and reliable manner." *McDaniel*, 558 U.S. at 136.

B. The DNA evidence the jury relied on to convict Mr. Escobar was unreliable.

Few cases so vividly illustrate the prejudicial effect of false DNA evidence as this one. The case against Mr. Escobar was founded on testimony about purportedly incriminating DNA testing, much of it mixture (or multiple-contributor) DNA evidence: testimony that the murder victim "could not be excluded as a contributor" to DNA collected from a pair of shoes and jeans belonging to Mr. Escobar and from the car he was driving the day of the murder; and testimony that Mr. Escobar "could not be excluded as a contributor to" DNA samples from the crime scene. Pet. App. 43a-45a. That DNA evidence turned out to be false. As even a brief review of the record shows, virtually *all* the perils of misused DNA evidence described above—juror overreliance, biased-driven analysis, mishandling of evidence, and misinterpretation of testing—manifested here.

1. Begin with the fact that much of the DNA evidence was analyzed by a crime lab so untrustworthy that it was permanently shuttered.

After Mr. Escobar's conviction and the denial of his first state habeas petition, the Austin Police Department (APD) DNA lab, which analyzed the DNA in his case, was audited. Pet. App. 69a. The audit was initiated because of significant concerns around the APD lab's handling of DNA mixtures, *id.*—the kind of multiple-person DNA evidence that is especially difficult to interpret even in proper conditions, *see* pp. 8-9., *supra*, and which characterized several of the samples at issue in this case, *e.g.*, Pet. App. 28a.

The audit revealed shocking lapses in practice. The lab's work was shot through with evidence of the "observer effects" commentators have warned result from too close a relationship between crime labs and the prosecution. See p. 10, supra. Analysts from the APD lab, including the analysts assigned to this case, repeatedly engaged in "suspect and victim-driven bias," gearing their work to meet the police and prosecution's preferred version of the facts. Pet. App. 73a-76a. Ana-

lysts "lacked understanding about the importance of quality assurance procedures," and "the lab's 'cavalier attitude about the practice of performing forensic analyses" caused "serious contamination events." Pet. App. 76a-78a. Worse still, management of the lab "did not have the scientific and technical knowledge necessary" to correct these errors, and analysts broadcast "an inability or unwillingness to adhere to best practices in DNA analysis." Pet. App. 78a-79a, 83a-84a.

The lab was stripped of its accreditation and closed. Pet. App. 80a. Its problems ultimately proved incurable—analysts (including the same analysts who worked on this case) "were unwilling to accept responsibility for their errors and embrace best practices." Pet. App. 81a-83a. Even more past violations surfaced over time: for instance, a "[f]reezer malfunction" that an analyst who worked on this case tried to "keep ... secret," and attempts to improperly "squeeze data out of samples that otherwise might not have been interpretable." Pet. App. 84a-87a (quotation marks omitted).

- 2. The lab's treatment of Mr. Escobar's case was plagued with the problems that led to the lab's closure. First, the lab operated under the assumption that Mr. Escobar is guilty. Second, there was documented cross-contamination of samples, which had a particular impact on the sample taken from Mr. Escobar's shoes. Third, the lab did not properly test multi-source samples like the samples taken from the Mazda.
- a. The observer effects that tainted the APD Lab's work manifested here. Evidence showed "that APD's testing strategy was influenced by irrelevant case information, including the prosecution's unproven theory of guilt." Pet. App. 74a-76a. The Technical Leader of the APD DNA lab ordered "additional testing" after

"APD was unable to locate [Mr. Escobar's] DNA on any crime scene evidence." Pet. App. 74a-75a. The Leader ordered this testing based on her own strongly held belief that Mr. Escobar was guilty of "really a very brutal murder of a completely innocent victim." Id. Having been effectively told by a supervisor that Mr. Escobar was guilty, one analyst reverse-engineered the DNA testing to produce incriminating results. Pet. App. 73a-74a. An analyst from Fairfax Identity Laboratories, an external lab that performed further testing of the DNA. was also improperly exposed to the prosecution's theory of the case. Pet. App. 126a. As the habeas court observed, this was a flagrant violation of the National Commission on Forensic Science's guidelines on limiting forensic analysts to task-relevant information to minimize the possibility of bias. Pet. App. 75a-76a; see also p. 10, supra.

b. The APD lab's track record of contaminating and mishandling evidence was also on display, especially with respect to the sample taken from Mr. Escobar's polo shoes—a sample on which the CCA heavily relied without acknowledging the cross-contamination issues. *See* Pet. App. 142a-146a.

The CCA has consistently relied on a DNA sample taken from Mr. Escobar's shoes that included DNA from which the crime victim could not be excluded. But the habeas court found a significant risk that this sample was contaminated by evidence from the crime scene where the victim was killed. Pet. App. 103a-105a. Evidence with wet blood that had been taken from the crime scene at the victim's apartment—which obviously included the victim's DNA—had been stored, uncovered, in a particular drying room. Pet. App. 104a. Wet blood creates a high risk of cross-contamination because

it can "easily be transferred to other items." Pet. App. 103a-104a. Nevertheless, a crime scene specialist named Stacey Wells—who had "a documented pattern of improperly packaging and handling crime scene evidence," Pet. App. 102a—improperly stored evidence taken from Mr. Escobar's mother's residence in the same drying room as the wet-blood evidence from the victim's apartment. Pet. App. 104a. There is no evidence that anyone took any steps to prevent cross-contamination between this evidence, despite the uncovered wet blood. Pet. App. 104a.

The next day, Ms. Wells removed the contaminated evidence from Mr. Escobar's mother's residence and packaged that evidence together with evidence she had collected from Mr. Escobar's apartment—including Mr. Escobar's polo shoes. Pet. App. 105a & n.10. There is no evidence that Ms. Wells took any steps to prevent cross-contamination between these sets of evidence.

The net result, as the habeas court put it, is that this improper handling of evidence created "a risk of cross-contamination between two—and later three—different crime scenes." Pet. App. 105a. Put more bluntly, the lab's failure to take any measures to prevent cross-contamination of evidence created a real risk that the blood sampled from Mr. Escobar's shoe got onto his shoe at the crime lab, not at the victim's apartment.

The CCA has never grappled with these contamination risks. The CCA described the habeas court's findings as being limited to "general deficiencies" in evidence handling that did not "affect[] the DNA results in [t]his particular case." Pet. App. 31a. But, as just discussed, that is flatly incorrect. The habeas court made findings about cross-contamination risks *specific to the*

polo shoes—specifically, that the lab's mishandling of evidence created a risk that the DNA on the polo shoes came from the crime *lab*, not the crime *scene*.

c. There was also significant evidence that the APD lab and the Fairfax lab misinterpreted their own testing in ways that cannot be corrected, in particular with regard to the samples taken from the Mazda. Pet. App. 120a-127a.

The habeas court made detailed findings about why Items 7 and 8—the samples taken from the Mazda—did not provide reliable evidence to support the verdict. Pet. App. 122a-127a. As the court put it, "the progressive shortening of the peak heights from left to right on the electropherograms" reflected "that both of these samples are degraded," making the lab's results unreliable and any future testing impossible. Pet. App. 122a. Indeed, the Mitotyping lab itself viewed Item 7 as "a partial mixed profile of at least two contributors, at least one of whom is male," which meant that Mitotyping agreed that "the sample is degraded" and had an "unknown number of contributors." Pet. App. 122a-123a. Yet the lab still "calculated a Random Match Probability statistic for the alleles [it] determined to be associated with the major contributor," which, as the habeas court found, is impossible to do reliably without knowing the number of contributors. *Id.*

The habeas court thus credited expert testimony from Dr. Krane as to why the Mitotyping lab's analysis was unscientific "because Item 7 is degraded, has indications of missing data, and has an unknown number of contributors," which makes it "impossible to determine with confidence what the data actually means." Pet. App. 123a-124a. That was particularly so because of "the possibility of allelic stacking"—that is, the possibil-

ity that different contributors' alleles were reflected in the data and could not be disaggregated—"which can make it difficult to identify contributions from one or more minor contributors who may share alleles with the major contributor." Id. "Because of these complexities," the habeas court found, "there is no confidence that the loci identified by [Fairfax] and [later Mitotyping as belonging to the major contributor can actually be associated with a major contributor." *Id.* Moreover, "there is no objective method for determining ... whether allelic dropout did or did not occur" due to the degradation—which means that alleles that were once present in the tested samples might no longer be detected. *Id.* That is why the habeas court determined "that the most appropriate interpretation is to describe Item 7 as inconclusive, in accordance with Dr. Krane's analysis." Id.

For the same reasons, Item 8—the only other Mazda sample on which the CCA continues to rely—is also inconclusive. Both Fairfax and Mitotyping admitted that Item 8 had "at least two contributors." Pet. App. 124a. Indeed, Ms. Roe—the Fairfax analyst who originally tested the sample—admitted under oath that "there were probably more than two contributors to the mixture due to peak height ratios at several loci." *Id.* For this reason alone, the habeas court found "that Item 8 should be deemed inconclusive." *Id.*

Finally, as to both Item 7 and 8, the habeas court further found that the samples had "significant saturation in the testing data." Pet. App. 125a-126a. "Saturation can occur," the court explained, "during the amplification step of the DNA testing process if too much DNA is used for the amplification reaction." *Id.* "This overwhelms the instrument's photodetector such that

the intensity of the signal changes the shape and height of the peaks and creates artifacts such as pull-up, which occurs when the instrument fails to detect the different colored dyes associated with each DNA marker." Id. "To prevent saturation and ensure reliable results, the test kit manufacturer recommends using between 0.5 and 1.25 nanograms for the amplification." *Id.* (footnote omitted). As "Dr. Krane explained ...[,] one of the reasons why test kit manufacturers provide guidelines for the optimum quantity of DNA is to discourage labs from trying to draw conclusions from very small or trace amounts of DNA that could have been deposited on an item through contamination or that was present on the item long before a crime took place." Pet. App. 125a n.14. Yet "Ms. Roe used up to 7 nanograms of DNA for Item 7 and up to 4.9 nanograms of DNA for Item 8"—many times the nanograms recommended by the test kit manufacturer—and "then exacerbated the problem by injecting Items 7 and 8 for 15 seconds, whereas most labs use an injection time of 5 or 10 seconds." Pet. App. 125a-126a. Worse still, the "testing data indicates that instead of going back and reamplifying a lower amount of DNA or injecting the samples for less time, she kept reinjecting the same amount of DNA for the same amount of time, resulting in significant saturation in the electropherograms." *Id.* The net result, again, is that the DNA evidence from the Mazda is wholly unreliable.

The CCA again ignored these findings from the habeas court, reiterating its unsupported view that the Mazda samples support the conviction, Pet. App. 21a, without acknowledging or disputing the habeas court's findings that the prior analysis of those samples was flawed and that the samples cannot now be retested or reinterpreted.

3. The habeas court documented these deficiencies in a 178-page set of findings. The only reasonable conclusion from those findings is the one the habeas court (and, ultimately, the prosecution) drew: "all of the DNA evidence relied on by the State at trial would have either been excluded or subject to a strong reliability challenge." Pet App. 154a. And because "the DNA evidence was likely what tipped the scales in the State's favor," "the State would not have been able to obtain a conviction." Pet. App. 155a-158a.

The prosecution made clear that the DNA evidence "was the linchpin" of its case, by "repeatedly emphasiz[ing]" its importance. Pet. App. 154a. Accordingly, given the overwhelming power of DNA evidence with juries, see Part I.A.1, supra, the mishandling of DNA evidence in this case was material to the verdict.

Indeed, this is one of the rare cases in which there is *express* evidence of juror impact. In response to a question from the prosecution at an evidentiary hearing in open court, a juror in the case stated: "I was sitting on the fence ... as to whether [Mr. Escobar] was guilty or not guilty up to when the DNA evidence was submitted to the jury, and for me, that was the sealing factor." Pet. App. 155a-156a. There could be no clearer indication that no DNA evidence would have meant no conviction.

Ultimately, the case for habeas relief was so strong that, by the time the case reached the CCA, the State itself conceded error and agreed with the habeas court that there was a reasonable likelihood that Mr. Escobar would not have been convicted absent the use of unreliable DNA evidence. Pet. App. 268a-269a, 279a.

In the face of all this, the CCA's conclusion in *Esco*-

bar I that Mr. Escobar had not shown that the DNA evidence was material cannot be squared with the law or basic principles of justice. The court showed no sensitivity to the widespread consensus that, given its unprecedented influence on jurors, unreliable DNA evidence is tremendously prejudicial. Likewise, the CCA failed to engage with the habeas court's meticulous fact-finding.

Even after this Court's GVR in *Escobar I*, the CCA refused to meaningfully engage with the habeas court's findings. Perhaps most problematically, the CCA continued to insist that the polo shoe and Mazda samples support the conviction without acknowledging—let alone disputing—the habeas court's findings regarding the risk of contamination of the shoe samples and the inconclusiveness of the Mazda samples.

This Court should not tolerate the CCA's cavalier attitude to a death sentence for a man who is very likely innocent. Given the CCA's continuing refusal to address the specific issues with the unreliable shoe and Mazda DNA evidence or the prosecution's confession of error, plenary review is warranted.

II. The shoe-print and latent-fingerprint evidence was also unreliable.

The CCA also claimed that "certain evidence" beyond the false DNA testing—specifically, a shoe print and latent fingerprint—could support the verdict despite the false DNA evidence. Pet. App. 2a.

That is doubly wrong. First, as discussed above, DNA evidence is overwhelmingly likely to be dispositive in jurors' eyes, and one juror testified, under oath, that the DNA evidence *was* dispositive in this case. Second, the shoe print and fingerprint evidence was *not* relia-

ble. Despite having had two opportunities to address the problems with this evidence, the CCA has simply ignored them.⁴

1. The prosecution's shoe-print testimony was that a shoe seized from Mr. Escobar "had a similar tread design to an impression left in blood" at the crime scene. Pet. App. 43a. There was no evidence that there was any *individual* correspondence between Mr. Escobar's shoe and the shoe print at the crime scene; the evidence was simply that Mr. Escobar's shoes were of the same general class as the shoe that left the shoe print. The State itself offered a succinct critique of this evidence:

[T]he State's witness was only able to assess some "class characteristics" for this shoe print impression. Additionally, the State's expert did not measure the print, could not determine the size of the shoe, did not know which types of shoes had this tread pattern, and could not determine what brand of shoe made the impressions. Thus, there could potentially have been thousands of similar shoes in the Austin area.

Further, in recent years, scientists have criticized "forensic feature-comparison methods," such as shoe print comparisons, as unreliable because they "are not supported by sufficiently rigorous scientific studies," and because these disciplines

⁴ The cell-tower evidence, too, cannot support the verdict. As the State succinctly put it, "because Petitioner lived in the same apartment complex as the victim, the cell tower evidence," even if scientifically reliable, "merely showed that he was in the general vicinity of his own apartment, or even his mother's house, on the night of the offense." Br. of Resp. in Support of Pet. at 17, *Escobar v. Texas*, 143 S. Ct. 557 (2023) (No. 21-1601) (Resp. *Escobar I Br.*).

have not developed objective criteria for reaching conclusions.

Resp. *Escobar I* Br. at 17-18 (citations omitted).

Accordingly, the most the shoe-print evidence could have shown was that there were shared class characteristics between Mr. Escobar's shoe and the tread pattern. But shared class characteristics do not produce any measurable probability that a given shoe matches a given print "because accurate information is lacking regarding the exact number of shoes produced in a particular design, size, and geographic distribution, as well as how many shoes of that design and size remain in use." Michael B. Smith, The Forensic Analysis of Footwear Impression Evidence, 11 Forensic Sci. Commc'ns no. 3 (2009), https://archives.fbi.gov/archives/about-us/lab/forensic-science-communications/fsc/july2009/re view; see also Pet. App. 156a.

The shoe print analysis therefore does not support the conviction. Indeed, analogous shoe-print evidence has led to wrongful convictions. In the trial of Charles Fain, an FBI analyst testified it was "possible" Fain's shoe made a certain impression at the crime. Brandon L. Garrett & Peter J. Neufeld, *Invalid Forensic Science Testimony and Wrongful Convictions*, 95 Va. L. Rev. 1, 71-72 (2009). The jury convicted Fain, who "served nearly 18 years on death row for a murder and rape he didn't commit" until later DNA testing proved his innocence. Innocence Project, *Charles Irvin Fain*, https://innocenceproject.org/cases/charles-irvin-fain/.

2. The latent-fingerprint analysis is no better. Whereas "known prints" ("fingerprints deliberately collected under a controlled setting from known subjects") are usually "of high quality" and so "can be searched

automatically and reliably against large databases," latent fingerprints ("a complete or partial friction-ridge impression from an unknown subject") "are often incomplete and of variable quality." President's Council of Advisors on Science and Technology, Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods at 88 (Sept. 2016). And while latent-fingerprint analysis was "hailed as infallible" for over a century, id. at 87, authorities began scrutinizing the "subjective" methods employed in latentfingerprint analysis after a series of high-profile misidentifications, id. at 90, 103. The President's Council of Advisors on Science and Technology has now cautioned that latent-fingerprint analysis can be validly applied only in limited circumstances, including where the analyst was not exposed to task-irrelevant information and that the quality of the latent print is high. *Id.* at 149.

The latent-fingerprint analysis introduced against Mr. Escobar flunks this standard. This evidence was "admitted under circumstances suggestive of suspect-driven bias." Pet. App. 156a. The prosecution originally presented testimony that "there were no positive results for the latent prints found in [the victim]'s apartment." Pet. App. 45a. Only in the middle of trial did APD's analyst "decide[] to re-examine" the evidence and change her mind. Pet. App. 45a. That blatantly outcome-oriented re-analysis was not reliable, and certainly is not so reliable as to support a verdict tainted by concededly false DNA testimony.

* * *

Given the pedestal on which jurors place DNA evidence, it is hard to imagine a case in which a conviction could stand when that DNA evidence was later found to be false—especially a case in which the defendant was

sentenced to death. And even if such a case might exist, this certainly is not it. Even the prosecutors admit that the DNA evidence was false, contaminated, or uninterpretable and the remaining evidence was extremely unreliable. The CCA's insistence that Mr. Escobar can nevertheless be put to death is both inexplicable and inexcusable. Allowing that decision to stand creates a real risk that an innocent man will die. And the CCA has made clear that nothing will change its mind—not even this Court's prior GVR. This Court should grant certiorari and set this case for argument.

CONCLUSION

This Court should grant the petition.

Respectfully submitted.

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APPENDIX

Member Organizations of the Innocence Network for Amicus Brief Purposes

Actual Innocence Clinic at the University of Texas School of Law

After Innocence

Alaska Innocence Project

Arizona Justice Project

Boston College Innocence Program

California Innocence Project; Center on Wrongful Convictions

Connecticut Innocence Project/Post-Conviction Unit

Duke Center for Criminal Justice and Professional Responsibility

Exoneration Initiative

George C. Cochran Innocence Project at the University of Mississippi School of Law

Georgia Innocence Project

Hawai'i Innocence Project

Idaho Innocence Project

Illinois Innocence Project

Indiana University McKinney Wrongful Conviction Clinic

Innocence Delaware

Innocence Project

Innocence Project Argentina

Innocence Project at University of Virginia School of Law

Innocence Project Brasil

Innocence Project London

Innocence Project New Orleans

Innocence Project of Florida

Innocence Project of Texas

Italy Innocence Project

Korey Wise Innocence Project

Loyola Law School Project for the Innocent

Manchester Innocence Project

Michigan Innocence Clinic

Mid-Atlantic Innocence Project

Midwest Innocence Project

Montana Innocence Project

New England Innocence Project

New York Law School Post-Conviction Innocence Clinic

North Carolina Center on Actual Innocence

Northern California Innocence Project

Office of the Ohio Public Defender, Wrongful Conviction Project

Ohio Innocence Project

Oklahoma Innocence Project

Oregon Innocence Project

Osgoode Hall Innocence Project

PRoyecto Inocencia de Puerto Rico

Rocky Mountain Innocence Center

Taiwan Innocence Project

Thurgood Marshall School of Law Innocence Project

University of Arizona Innocence Project

University of British Columbia Innocence Project at the Allard School of Law

University of Miami Law Innocence Clinic

Wake Forest University Law School Innocence and Justice Clinic

Washington Innocence Project

West Virginia Innocence Project

Wisconsin Innocence Project