IN THE SUPREME COURT OF IOWA

DONNIE LEE WYLDES, JR., Applicant-Appellant, v. STATE OF IOWA Appellee.	S. CT. NO. 24-1123 WAYNE CO. NO. PCCV022960

APPEAL FROM THE IOWA DISTRICT COURT
FOR WAYNE COUNTY
HONORABLE ELISABETH REYNOLDSON, JUDGE

APPELLANT'S REPLY BRIEF AND ARGUMENT

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STATEMENT OF THE FACTS

Wyldes relies on the Statement of Facts from his appellate brief. However, given the State's misrepresentations of critical aspects of the trial record, he seeks to clarify the following for the Court.

The State mischaracterizes the evidence adduced at trial, which it previously—and appropriately—admitted was "thin." D0408, Ex.N, Crim. Trial T.764:2. Today, the State suggests that Wyldes gave an alibi that was "contradicted by the people he named," speculates that he told "lies" to the police "that only a killer would tell," and relied on testimony from a "friend" (Jay Kanney). SB at 8-9, 52. However, the State omits all the reasons why Kanney's testimony is not credible. SB at 9.

Wyldes provided an alibi that was generally supported by everyone at issue: on the night in question, Wyldes was with his friends Bobby Easley and Jay Kanney for at least three hours and then spent the night at his grandparents. D0408 at T.772:7-21, 812:3-815:25. There are inconsistencies regarding the exact timing of what occurred on this random night, which is expected, given the scientific realities of memory and that each alibi witness was

interviewed multiple times by law enforcement over the four-month investigation. *See* D0547, Apps. 8-10 at 88-123.

There is no evidence in the record that Wyldes ever intentionally lied to law enforcement. First, Wyldes voluntarily went to law enforcement to clarify any misinformation he provided and provide locations where he had fired his .22 firearm. DO408 at T.824:18-825:6. As Wyldes repeatedly explained, he misunderstood some of law enforcement's questions, ("I believe that he asked me if I had many guns and I had told him no, I didn't."); was not clear about what Christmas was at issue when he told law enforcement that he received tennis shoes from his family "last Christmas," was "nervous," especially because he purchased a gun from his cousin without transferring ownership and one of his guns was missing and possibly stolen or sold by Kanney, and was "afraid of being implicated in something I had nothing to do with." DO408 at T.817:23-24; 818:21-819:4; 819:24-820:19; 823:5; 824:13-14.

Finally, the State mischaracterizes Kanney's testimony. Kanney testified that Wyldes told him he had shot his rifle numerous times the night he went into a ditch, but the State fails to account for the fact that Kanney came forward with this information only after his

third interview with law enforcement. D0410, Ex.L, Crim. Trial T.519:406. The State also omits that the casings were neither dusty nor muddy, making it improbable that they were in the mud during the October 11 storm, or that they were found .14 miles away from Wyldes's car in the opposite direction of the Starnes residence, raising the question of why Wyldes would walk .14 miles in the wrong direction through a storm before firing his rifle. *See* D0413, Ex.I, Crim. Trial T.86:10-20; D0412, Ex.J, Crim. Trial T.176:25-177:4. Kanney's convenient trial testimony was contradicted by Easley, who testified that he had no memory of Kanney having returned Wyldes's gun to him, and by surviving victim Ruby Starnes, who testified that she noticed the lights of a car going into a ditch, but did not see Wyldes with a gun or hear any gunshots. D0412 at T.169:2-22, 246:20-247:13. The State overlooks that Kanney was an admitted liar, testifying that when he was approached by an investigator and trial counsel for Wyldes, he told them a "couple old wives tales that wasn't the truth," because he had "too many beers that day" and wanted to get rid of them. D0410 at T.578:8-14.

This Court should not be misled. The only direct evidence introduced against Wyldes at his 1987 trial was the FATM and

footwear comparison evidence that now face significant criticism from relevant scientific communities.

With respect to the PCR Trial record, the State misleadingly suggests that Harvey's actual examination techniques were endorsed by John Cayton, Wyldes's trial expert, and Victor Murillo, the State's FATM expert at the PCR trial. SB at 32. Murillo never examined the actual evidence, so he offered no opinion as to Harvey's analysis. DO439, Ex.24, Murillo Deposition p.7:3-5. Moreover, given the dearth of documentation—which is required under today's standards—Cayton examined the actual evidence but, like Murillo, had no way of knowing precisely what Harvey did. *See* D0409 Crim. Trial T.651:13-15; 672:16-676:11, 16-20; 679:3-7; 684:17-21; 685:18-686:5; *see also* DO439 at p.166:16-17 ("I can't tell you exactly what he looked at.").

ARGUMENT

Donnie Wyldes is challenging his conviction on the basis that the change in understanding regarding the scientific validity and reliability of firearm and toolmark ("FATM") examination, entitles him to a new trial. Wyldes urges this Court to ignore the State's scare

tactics[1] and focus on his specific case: where the FATM evidence—the only direct evidence of Wyldes's guilt—was presented with absolute certainty and bolstered by testimony deemed by even the State's own PCR experts to be inappropriate and derived from a made-up technique and unsupportable rarity statistic. Because the laboratory standards and scientific critique that have emerged since Wyldes's trial had not yet developed, this testimony came before the jury entirely unopposed—without Wyldes being able to effectively cross-examine or present his own expert evidence. Unable to avail himself of the scientific community's current critique, **Wyldes's own trial expert corroborated the State's most damning evidence**. A trial today would be profoundly different.

The State's arguments to all Wyldes's claims—that the newly discovered evidence would not change the outcome of trial, Wyldes's actual innocence claim fails, and the use of unreliable evidence at

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[1] Wyldes urges this Court to recognize the State's mischaracterization of his arguments—i.e. "he wants this Court to rule that anyone who was convicted on the basis of expert testimony from a firearm toolmark examiner 'did not receive a fair trial' and is entitled to a new trial (or a judicial finding of actual innocence)," State's Brief (hereinafter, "SB") at 8—for what it is: inflammatory and misleading.

trial did not violate his due process rights—rests entirely on its assertion that some form of FATM evidence is still admissible. This is not Wyldes's argument and fundamentally misunderstands the materiality inquiry required by *More v. State*. The question is not whether any FATM evidence would be admissible, but whether the specific evidence presented at trial would be different in light of current scientific understanding.

The answer is unmistakable: it would. Today's jury would hear that the neutral scientific community (as opposed to the self-interested FATM and prosecutorial communities) has raised significant questions about the scientific validity and reliability of the FATM testimony offered at Wyldes's trial. *See* Section III, at pages 30-33. This evidence—which has resulted in courts around the country limiting the kind of testimony that examiners are allowed to give, *see* Section IV, at page 33-34—would impact the State's only direct evidence against Wyldes.

The State glosses over the entire critique, simply re-asserting that Wyldes's claims fail because empirical studies establish false positive identification rates "near 0% and … never greater than 2.2%." SB at 7. This assertion ignores the substantial evidence

presented at the PCR trial—including from the State's own witnesses—that these studies universally suffer from design flaws that make it impossible to extrapolate their reported error rates to actual casework. Given the statistical problems with the studies, the only way to extrapolate their results to casework is through speculation—such as that found throughout the State's Brief. The questions left by the statistical flaws in the studies' design and reporting mean that we simply do not know how accurately their results will correlate to the real world. At a new trial, the jury would hear that speculation cannot fill in the gaps in scientific understanding and statistical soundness that pervade these studies. It is not the case that because uncertainties *might* resolve favorably (in terms of the studies' outcomes) that the studies are therefore sound: **until the uncertainties are resolved, the studies cannot stand for the discipline as a whole.**

Moreover, the State ignores the fact—as agreed to by the State's own witnesses—that **none of these studies applies to the State trial expert's testimony regarding his made-up theory of "progressive deterioration" or the misleading rarity statistic he**

presented to the jury; testimony that was used to bolster his toolmark "match."

Considering the full weight of all evidence, both old and new, there probably would have been a change in the result of Wyldes's trial. *See State v. Weaver*, 554 N.W.2d 240, 249 (Iowa 1996) (citations omitted) (holding that "[i]n determining whether newly-discovered evidence probably would have changed the result at trial, we examine the district court's ruling regarding the proffered new evidence in view of the strength or weakness of the State's proof of guilt"); *see also State v. Whitsel*, 339 N.W.2d 149, 156-57 (Iowa 1983); *State v. Gilroy*, 313 N.W.2d 513, 522 (Iowa 1981). Similarly, the new evidence would establish Wyldes's actual innocence and due process claims.

I. Today, a Jury Would Hear Significant Evidence From Neutral and Independent Scientists that Harvey's Testimony at Trial Is Not Supported by Properly Designed Research.

Even if the State's affirmative FATM evidence were admitted today in the same way it was at trial, the outcome of the trial would "probably change." *Weaver*, 554 N.W.2d at 249. It is not, "hard to pinpoint what *precisely* Wyldes is arguing that he would offer 'alongside' the State's forensic evidence." SB at 48. Rather, it is clear.

Whereas at trial **Wyldes's own expert agreed with the State's expert that the casings from the scene "matched" the casings associated with Wyldes**, today:

(1) Wyldes would present compelling evidence from neutral and independent scientists, statisticians and experts in study design and human cognition demonstrating that:

(a) sufficient, properly designed studies do not yet exist to establish the scientific validity and reliability of FATM examination;

(b) the false positive error rates associated with the discipline could range from near zero **up to 50%**; and

(c) according to its own witnesses, the State's bolstering testimony regarding "progressive deterioration" and the supposed rarity of the markings on the casings are not supported by research and contravene existing laboratory standards.

(2) Wyldes could use this scientific knowledge and understanding—information unavailable to his trial counsel because it did not yet exist—to cross-examine the State's expert, as Wyldes's did at his 2023 PCR trial.

Today, Wyldes would be armed with a robust scientific critique of the discipline 15 years in the making—which simply did not exist at the time of trial. Beginning in 2009 and continuing until today,[2] the scientific community has pointed out deficiencies in the research underlying the FATM discipline. The ongoing post-PCAST critique continues and is exemplified by the following:

1. D0547, Post-Trial Reply Br. App.5 p.24-32, Nicholas Scurich, et al., *Scientific guidelines for evaluating the validity of forensic feature-comparison methods*, 120 Proc. Nat'l Acad. Scis. 41 (2023) (recommending guidelines regarding plausibility of various forensic hypotheses, the soundness of research design

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[2] Though more recent studies are better designed than the ones in existence when the NAS Report was published in 2009 or the PCAST Report in 2016, additional inquiry—especially by statisticians—since 2016 has revealed additional problems. The idea, as the State says, "following PCAST's design specifications should be a safe harbor," SB at 39, misses the ball. *See, generally*, D0426, Ex.6, PCAST (2016); D0425, Ex.5, NAS (2009). Science is not static.

and methods, adequacy of testing, and ability to extrapolate from group data to individual cases).

2. D0547, Post-Trial Reply Br. App.1 p.2, Jonathan J. Koehler, et al., *The scientific reinvention of forensic science*, 120 Proc. Nat'l Acad. Scis. 41, 41 (2023) ("Forensic science is undergoing an evolution in which a long-standing 'trust the examiner' focus is being replaced by a 'trust the scientific method' focus.").

3. D0547, Post-Trial Reply Br. App.4 p.13-22, William C. Thompson, *Shifting decision thresholds can undermine the probative value and legal utility of forensic pattern-matching evidence*, 120 Proc. Nat'l Acad. Scis. 41 (2023) (explaining that small changes in examiners' decision thresholds can lead to significant increases in false positive rates).

4. D0547, Post-Trial Reply Br. App.6 p.35-44, Kori Khan & Alicia Carriquiry, *Shining a light on forensic black-box studies*, 10 Stats. & Pub. Pol. 1 (2023) (explaining how current black-box studies suffer from inappropriate sampling methods and high rates of missing data, which affects error rate estimates).

5. D0466, Ex.46, David L. Faigman, Nicholas Scurich, & Thomas D. Albright, *The field of firearms forensics is flawed*, Sci. Am. 2 (May 25, 2022) ("Contrary to its popular reputation, firearms identification is a field built largely on smoke and mirrors.").

6. D0465, Ex.45, Itiel E. Dror & Nicholas Scurich, *(Mis)use of scientific measurements in forensic science*, 2 Forensic Sci. Int'l: Synergy 333, 337 (2020) (identifying the problem of and proposing a solution for measuring error rates in fields, such as FATM, that include "inconclusive" as a category in the conclusion scale).

7. D0464, Ex.44, Alan H. Dorfman & Richard Valliant, *Inconclusives, errors, and error rates in forensic firearms analysis: three statistical perspectives*, 5 Forensic Sci. Int'l: Synergy 5, 1 (June 8, 2022) (assessing existing FATM research and concluding "straightforward, sound estimates of error rates requires critical improvement to the design of firearms studies").

The scholars putting forth the critiques do not maintain some radical agenda, but, rather, are undertaking an empirical inquiry into the scientific validity and reliability of evidence presented in court. Given

the issues with all existing studies ranging from improper statistical sampling to missing data to the treatment of inconclusives, **existing studies simply cannot provide domain-wide casework error rates**.

These concepts are simple and could be easily grasped by a jury: statistical flaws in study design undermine the usefulness of the studies' results in understanding error rates in actual casework. As such, a reasonable juror would discount the FATM evidence in this case—the only direct evidence linking Wyldes to the crime.

For studies to be generalizable to FATM examination as a whole, both neutral, independent statisticians and the State's own witnesses agree the **participants must represent the population at issue**—in the case of FATM examination, all qualified examiners in the U.S. *See* D0464 at 5; D0565, PCR Tr.98:19-22 (8/7/2023) ("Q. It's important, in your words, when you're doing a validation study, that the people being studied are representative of the larger population; right? A. Yes."). This is a basic premise of statistics. The population of FATM examiners participating in existing firearms analysis studies **are not randomly selected participants from the population**, but is comprised of self-selected volunteers. *See* D0464 at 5; D0565 at Tr.98:23-100:16. The State's assertion that there is

no reason to believe these volunteers are not representative, SB at 35-36, is simply unsupported wishful thinking that inverts basic statistical principles, and further is contradicted by the evidence adduced at the PCR Trial. *See, e.g.*, D0565 at Tr.98:23-100:16. Without a representative sample of participants, a study can speak to the error rate of only those participants, not to the discipline as a whole.

Similarly, **missing data from either participant drop-out or failure to complete a study can create several potential biases in study data**—particularly if the participants that are the source of missing data are "systematically different" from those who do complete the study. Today, the effect of participant drop-out on existing FATM studies is not fully understood—it could be minimal or significant. D0464 at 5. To understand whether a study's results can be applied to the discipline at large, one must understand the missing data **and its causes**—information that is not currently available. D0464 at 5; *see also* D0565 at Tr.100:17-101:15 ("[W]ould you agree that to understand how similar to the real world the study numbers are, it would be important to understand how many examiners dropped out; right? A. Yes. Q. And why; right? A. Yes.").

Again, as with the problem of volunteer participants, the State's speculation regarding the explanations for examiner drop out or item non-response, SB at 35-36, cannot cure the statistical problems they pose: future studies would need to screen—and then account for—**actual** explanations. D0464 at 5.

Additional obvious obstacles to generalizability that Wyldes would today be able to present to a jury include **the level of difficulty**, and **the size of the sample population of both examiners and types of firearms and ammunition studied**. *See* D0565 at Tr.95:15-96:15; 132:5-21.

The other issue that Wyldes can explain to a jury today—which the State mischaracterizes—is **the prevalence and treatment of the "inconclusive" answer in studies**. SB at 38. The State attempts to bat this problem away—bizarrely citing the dissent from the *Abruquah v. State* decision and completely ignoring the *court's actual findings*, and speculating the Ames II/FBI results "suggest" the context of an examination has nothing to do with examiners' shifting decision thresholds—and misses Wyldes's key point: the treatment of "inconclusives" creates yet another area of uncertainty, which, like lack of representativeness, injects a high level of uncertainty into

whether the studies' results are generalizable to casework. SB at 28, 38. Though current studies report very few false positive errors, the fact (established by Ames II/FBI) that examiners' thresholds change—even for the same examiner in identical circumstances—means there is no way to know if the very large number of "inconclusives" we see in studies would remain inconclusives in actual casework. *See* D0452, Ex.32, Ames II/FBI Study at 74-75 (2023). Even if just the group of "inconclusive A" answers from that study—that is the "inconclusives" leaning toward identifications—were deemed "identifications" in actual casework, the false positive error rate for cartridge casings would go up **nearly 10 times**, from 0.92% to 7.2%. *See* D0452 at Figure 1; *see also Abruquah v. State*, 296 A.3d 961, 980-81 (Md. 2023) (undertaking the same calculation for bullet comparisons and finding the false-positive rate would jump from 0.7% to 10.13%).

The State attempts to dismiss this critique—one put forward by "amici and all their cited sources [and a] frustratingly long list of advocates and commentators"—by noting "many labs and agencies have policies that only allow examiners to make eliminations on differences in class characteristics (or if a firearm is recovered and

available for repeated test-firing)." SB at 40. This explanation, (1) mischaracterizes these voices as "advocates and commentators" even though all are **neutral and independent scientists, statisticians and scholars**, with no professional motive other than the advancement of science in the law; and (2) fails to account for the way the Ames II/FBI study demonstrated that examiners' determinations shift between the remaining categories—within the different kinds of "inconclusives." *See* D0452 at 40, 75. The fact that examiners tended not to miss identifications—the vast majority of inconclusives apply to *different-source* items—is exactly the point: the concern is that, in actual casework, some of this very large pool of non-matching items deemed in studies to be inconclusive **might become false positive identifications**. This ambiguity in the data is what has caused this "frustratingly long list" of neutral and independent scientists concern over usefulness of the data to understanding error rates in casework.

Providing, as the State does, speculative explanations for why this would not happen, cannot be the end of the inquiry. *See, e.g.*, SB at 40-46. The question of how to treat inconclusives injects yet another point of uncertainty into the studies' generalizability. That

uncertainty must be resolved; it cannot simply be wished away. Until the completion of sufficient blinded studies—studies where examiners do not know whether any particular set of exemplars is or is not actual casework—that uncertainty will remain.[3] And that uncertainty shifts the range of potential error rates to truly alarming percentages. *See* Table 2 from Wyldes's opening brief, reproduced, below.[4]

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[3] The Neumann et al. paper represents the first step down this road—it was not designed as a validation study, but rather to report "preliminary results from a blind quality control program." This data cannot be deemed representative since (1) they involve 11 examiners from a single lab; and (2) the lab is unique—it strips casework comparisons of the contextual case information that is available to examiners in every other lab in the country. D0404, Ex.R, Neumann Study at 964-67.

[4] The State presents data from an additional study—one that is not part of the record in this case. SB at 42 (discussing Guyll, et al.). This study suffers from the same issues as every other post-PCAST study at issue, and fundamentally misapplies statistical principals regarding prior probabilities in reporting its results. *See* Michael Rosenblum et al., *Incorrect statistical reasoning in Guyll et al. leads to biased claims about strength of forensic evidence*, 121(45) Proceedings of the National Academy of Sciences (2024), available at https://doi.org/10.1073/pnas.2315431121.

Table 2: False Positive Range in "Open Set" Studies[5]

Study	% of Different Source Comparisons Deemed "Inconclusive"	Bottom of FP Range (reported FP rate in study)	Top of FP Range (counting inconclusive as incorrect)
"Ames I" 2016 (D0483, Ex.34)	33.7%	1.01%	**34.8%**
Keisler 2018 (D0407, Ex.V)	20.1%	0.00%	**20.1%**
Neuman 2022 (D0471, Ex.R)†	74.1%	0.00%	**74.1%**
"FBI Ames II" 2023 (D0452, Ex.32)	65.43%	0.92%††	**50.58%**††

To be clear: Wyldes is not, as the State argues, asserting each inconclusive should be counted as an incorrect identification. SB at 20. Rather, relying on the work of scholars in statistics and study

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[5] ††Cartridge cases only.

design, **he is providing the range within which the actual false positive error rate is located**.[6]

In sum, whether this Court agrees with each of the critiques of the "frustratingly long list" of scientists and scholars who have examined the field of FATM research and found it lacking, these critiques are indisputably the product of serious and unbiased experts, and today, Wyldes would be able to present them to a jury—something he was unable to do at the time of his trial.

II. Like Courts Across the Country, a Reasonable Juror Would Find That the New Scientific Evidence Undermines the State's FATM Evidence.

We do not need to speculate as to the persuasiveness of the scientific critiques of the FATM studies to a factfinder—**these**

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[6] Reporting error rates in this way—using a range with the lower bound counting equivocal answers as correct and the upper bound counting them as correct—is not novel. It is precisely the approach embraced by the U.S. Food and Drug Administration when reporting the results of studies evaluating diagnostic tests. U.S. Department of Health and Human Services, Food and Drug Administration, Center for Devices and Radiological Health, Diagnostic Devices Branch, Division of Biostatistics, Office of Surveillance and Biometrics, *Guidance for Industry and FDA Staff Statistical Guidance on Reporting Results from Studies Evaluating Diagnostic Tests* (2007), https://www.fda.gov/regulatory-information/search-fda-guidance-documents/statistical-guidance-reporting-results-studies-evaluating-diagnostic-tests-guidance-industry-and-fda.

critiques have caused courts around the country to significantly limit FATM examiners' testimony and prohibit the very language that the State expert used here, that is, unqualified identification testimony that two sets of ammunition were fired from the "same gun." *See, e.g.*, *United States v. Adams*, 444 F.Supp.3d 1248 (D. Or. 2020) (excluding FATM evidence based on comparison of so-called "individual characteristics"); *United States v. Briscoe*, 703 F.Supp.3d 1288, 1308 (D.N.M. 2023) (precluding testimony "to any degree of certainty, that the items were fired from the same firearm"); *Geter v. United States*, 306 A.3d 126, 132-33 (D.C. Ct. App. 2023) (finding testimony that the gun transferred its "unique" markings to the casings should be excluded); *Abruquah*, 296 A.3d at 997 ("[T]he methodology of firearms identification … did not provide a reliable basis for [the examiner's] unqualified opinion that [fired ammunition] were fired from [the same firearm]."); *United States v. Mouzone*, 696 F.Supp.2d 536, 569, 572-73 (D. Md. 2010) (precluding conclusions of absolute or practical certainty and noting FATM evidence "has a long way to go before it legitimately can claim [to be a science]"); *United States v. Willock*, 696 F.Supp.2d 536, 546 (D. Md. 2010) (ordering "a complete restriction on the characterization of

certainty"); *United States v. Taylor*, 663 F.Supp.2d 1170, 1180 (D.N.M. 2009) (precluding testimony to "scientific certainty" or "to the exclusion, either practical or absolute, of all other guns"); *United States v. Ashburn*, 88 F.Supp.3d 239, 249-50 (E.D.N.Y. 2015) (precluding expert from testifying he is "certain or 100% sure of his conclusions that certain items match" or a match to "the exclusion of all other firearms in the world" or to a "practical impossibility" that any other gun could have fired the ammunition); *Commonwealth v. Pytou Heang*, 942 N.E.2d 927, 945-46 (Mass. 2011) (allowing testimony to a reasonable degree of ballistic certainty but precluding any description of FATM examination as a "science" or any conclusions to an absolute or practical certainty).

Iowa, though more liberal in its admissibility rules than *Daubert* jurisdictions, puts a premium on reliability: finding that "reliability is an implicit requirement of admissibility under Iowa Rule of Evidence 5.702 because 'unreliable testimony cannot assist the trier of fact.'" *Ranes v. Adams Laboratories, Inc.*, 778 N.W.2d 677, 685 (Iowa 2010). This Court does not need to go so far; **the FATM evidence offered at his trial does not need to be deemed inadmissible for Wyldes to prevail**. Rather, the Court must consider whether the newly

available scientific evidence—even if offered in conjunction with the evidence presented at trial—is such that a reasonable juror could find Wyldes not guilty.

III. Today, a Jury Would Hear That All Witnesses—Including the State's—Agreed That Harvey's Bolstering Testimony Regarding "Progressive Deterioration" and Providing a Rarity Statistic Is Not Appropriate.

There is more than just the "matching" testimony that would be significantly undermined by the new evidence adduced by Wyldes at trial—so too would Harvey's bolstering testimony about progressive deterioration and the rarity of the markings on the casings. The State tries to couch this testimony as merely his experience-based opinion, but **the State's own experts at the PCR trial uniformly agreed that the testimony is inappropriate by today's standards**. *See, e.g.*, D0565 at Tr.154:21-155:23. Though no laboratory standards existed at the time of Wyldes's trial, there are now requirements that all lab procedures be based on verifiable science, ad hoc procedures are precluded, and statistical statements be based on appropriate sampling plans. D0424, Ex.4, Chapman Deposition p.154:21-22, 156:8-14; D0422, Ex.2, Hermsen Deposition p.48:7-51:19.

As the State's own witnesses confirmed—Harvey's theory of "progressive deterioration" (used to determine that gouges along the sides of some of the over 18,000 casings collected from various firing ranges, though not the same, could have been made by the same gun, just either earlier or later in time than those on the casings at the scene) would not fly today. D0409, Ex.M, Crim. Trial T.647:2-649:25, 663:7-19. The State's experts testified that **the theory would not withstand today's more rigorous laboratory requirements**. D0565 at Tr.154:13-25 (no studies on the creation of this kind of mark or theory of progressive deterioration); 155:1-4 (no standard operating procedures, or SOPs, addressing progressive deterioration); 155:5-8 (progressive deterioration not part of the AFTE theory of identification); 155:9-11 (no proficiency testing on progressive deterioration). This Court should not be distracted by the State's argument that this made-up, unsupported, and unsubstantiated theory can be saved because it was "based on his experience and familiarity with firearms and their design and function." SB at 29.

The State's argument that this testimony would be supported by the Maryland Supreme Court's *Abruquah* decision, SB at 30, is misleading. The *Abruquah* decision, addressing the scientific critique

of the *AFTE theory of identification*—not this made-up theory of "progressive deterioration"—significantly curtailed what an examiner would be allowed to say about an "identification" finding. *See, e.g.*, 296 A.3d at 694-95. The *Abruquah* court would *disallow* testimony, such as Harvey's, that ammunition was fired by the "same gun," even when the AFTE theory was applied. *Id.* at 694-97. Harvey's "progressive deterioration" testimony—that the casings from ranges Wyldes had visited were significantly different from the casings at the range but could have been fired by the same gun *earlier or later in time* because of the way the way the gouge marks might have changed over time—is *not an application of the AFTE theory*. Moreover, as explained by both State experts, it fails to meet today's laboratory standards, because is not supported by verifiable science and represents the results of an ad hoc procedure. D0565 at Tr.154:13-25, 155:1-11.

Harvey's testimony about how rare the gouge marks are is similarly problematic. *See* D0409 at T.635:22-636:5. What the State downplays as "easy arithmetic," SB at 31, was presented the jury as expert statistical evidence that gouge marks occurred in only "five tenths of one percent" of casings—but was not a statistically or

scientifically appropriate statement. **The State's witnesses agreed that Harvey was not properly qualified to make this "statistical" calculation, and that today's standards would not support such a statistic**. *See, e.g.*, D0565 at Tr.155:15-18 (Harvey did not undertake any sampling plan); 155:19-156:2 (nothing in SOPs or AFTE theory about how to properly calculate population frequency); 156:3-5 (no proficiency testing on how to calculate population frequency). Harvey was able to go rogue because of the lack of laboratory standards at the time of his examination; today, such testimony would not be acceptable.

There is consensus among both Wyldes's and the State's witnesses that the unqualified individualization and unsupported statistical testimony presented to the jury at Wyldes's trial, though generally accepted at the time, is now misleading and was the result of inadequate practices and procedures.

IV. Today, a Jury Would Hear That It Is Inappropriate and Unscientific to Compare Footwear That Was Not Seized Until Nearly Four Months After the Crime Occurred.

The State similarly misstates the impact of the newly discovered evidence regarding the footwear impression evidence. SB at 24-25.

As the State's footwear expert conceded, by today's standards, the nearly four-month lag in time between the crime and the seizure of Wyldes's shoes **should have precluded examination**. DO556, PCR Tr.231:5-235:1 (6/29/2023). At the least, a jury today would understand the four-month lag between the crime and the seizure of the shoes undermines any probative value of the alleged association between Wyldes's shoes and the door. Though it is undisputed that they "could have been" the same brand as the shoe—the shoe "could have [also] been" Nike "Air Jordan" sneakers, the most popular sneaker in the world, or many other brands with the same outsole design—that might have made the impression at the scene, that conclusion is different from the extensive expert testimony at trial regarding the complex "scientific" processes he used to make his comparisons. D0409 at T.606:5-608:4.

V. With the Evidence Adduced at the PCR Trial, Wyldes Would Prevail on All of His Claims.

Where, as conceded by the State, most of the non-expert circumstantial evidence introduced at trial was "thin," presentation of the newly discovered scientific evidence of the evolving standards and significant criticism within the relevant scientific community—

standards and criticism that did not yet exist at the time of Wyldes's trial in 1987—would significantly alter the evidence before the jury and probably change the outcome of the trial. *See Weaver*, 554 N.W.2d at 246-49. The jury in 1987 was told—by both the State's expert and Wyldes's own expert—that, to a certainty, cartridge casings associated with Wyldes were fired by the very same gun as casings found at the scene; conclusions that were bolstered by Harvey's made-up theory of "progressive deterioration," misleading rarity statistics, and Tarasi's shoeprint association testimony. One need only consider the reports of the NRC, NAS, and PCAST, the significant post-PCAST critiques, as well as the testimony of both Wyldes's PCR trial expert **and the State's own witnesses**—and overlay it on the trial record in 1987—to see how different the first trial would have been if all the new evidence had been available. When "considered with all the other evidence," it is apparent that Wyldes's new evidence at least demonstrates by a preponderance that a reasonable jury would probably conclude that there existed reasonable doubt as to guilt and change the outcome of his trial. *See More; Weaver*, 554 N.W.2d at 248; *see also* D0544 at Attch. P.4-34, *People v. Genrich*, No. 1992CR95 (Mesa Cty. Ct. July 7, 2023).

Similarly, the newly discovered evidence—undermining the only direct evidence of Wyldes's guilt—further establishes that Wyldes is actually innocent. *See Schmidt v. State*, 909 N.W.2d 778, 795 (Iowa 2018) (recognizing a free-standing claim of actual innocence under the due process clause of the Iowa Constitution).

Finally, Wyldes's right to due process under the State and federal Constitutions was violated by the State's use of unreliable "expert" individualization, progressive deterioration, rarity statistic and association opinions at trial. *See Napue v. Illinois*, 360 U.S. 264, 269 (1959); *Chambers v. Mississippi*, 410 U.S. 284, 302 (1973); *see also More*, 880 N.W.2d at 499. Given the new advancements that have emerged, Wyldes's convictions were based on unreliable and fundamentally flawed evidence. Thus, relief here is merited.

VI. The PCR Court Erred in Granting Summary Disposition on Numerous Constitutional Claims Raised by Wyldes.

The State suggests that numerous constitutional claims raised by Wyldes were rightfully dismissed by the PCR court as being time-barred. SB at 57. Wyldes raised new grounds of law or fact that "could not have been raised within the applicable time period." Iowa Code §

822.3 (2024). These claims should not have been prematurely dismissed by the PCR court.

A. Wyldes's *Brady* Claim Is Not Time Barred.

In this instant PCR, Wyldes raised important impeachment evidence regarding the State's FATM expert Harvey who testified at his original trial, which was not discovered by Wyldes until 2022. *See* D0107, 2nd Amend. PCR at 12 (03/03/2022); *Brady v. Maryland*, 373 U.S. 83 (1963). This evidence was dismissed by the PCR court as time barred. D0129, S.J. Ruling at 21 (4/20/2022). Following the standards of summary judgment, in the light most favorable to the non-moving party—Wyldes—there were clear "genuine issue[s] of material fact[s]" in dispute; therefore, the dismissal of Wyldes's *Brady* claim was improper. *See* Iowa R. Civ. P. 1.981(3) (2024); *C & J Vantage Leasing Co. v. Wolfe*, 795 N.W.2d 65, 73 (Iowa 2011); *Eggiman v. Self-Insured Servs. Co.*, 718 N.W.2d 754, 758 (Iowa 2006).

In *Moon v. State*, the Iowa Supreme Court found a genuine issue of material fact as to whether certain *Brady* evidence could have been discovered within the three-year limitations period "because reasonable minds could differ on the question of whether Moon could

have raised the ground of fact earlier." 911 N.W.2d 137, 144-45 (Iowa 2018). After determining there was a dispute in fact as to the timeliness of Moon's claim, the Court proceeded to review Moon's *Brady* evidence on the merits. *Id.* At minimum (and like *Moon*), Wyldes was entitled to create an evidentiary record regarding his *Brady* claim so the merits of his claim could be considered.

B. Wyldes's Ineffective Assistance of Counsel Claim Is Not Time Barred.

Likewise, in this instant PCR, Wyldes raised evidence of ineffectiveness of trial counsel and prior post-conviction counsel for their failure to properly investigate Harvey's qualifications as a FATM expert, among other claims. D0003-07, PCR at 14-15, 18 (11/08/2010); D0010, Amend. PCR at 46-50 (10/30/2020); D0107, 2nd Amend. PCR at 16 (3/3/2022). The PCR court summarily dismissed these claims as time barred. *See* D0129 at 26. As with Wyldes's *Brady* claim, there were material issues in dispute, as precluded by law defining summary judgment, and the dismissal of Wyldes's ineffective assistance of counsel claims was improper. *See*

Iowa R. Civ. P. 1.981(3) (2024); *Wolfe*, 795 N.W.2d at 73; *Eggiman*, 718 N.W.2d at 758.

C. Wyldes Was Improperly Denied Access to Critical Discovery.

Civil discovery, per the Iowa Rules of Civil Procedure, allows for broader discovery than criminal cases. *See generally* Iowa R. Civ. P. (2024). Wyldes's discovery requests are relevant to his innocence claim, especially since these requests sought information regarding murders of similar victims (elderly white men) that occurred in a similar nature, during a similar time frame and involved the use of similar firearms. *See* D0184, Notice Subpoenas to DPS, Clarke Cty., Lucas Cty., & Marion Cty. at 2-16 (10/7/2022); *see also* D0490, Ex. 66, Similar Crimes Media Coverage. Wyldes maintains his innocence. Evidence that someone else killed Ronald Starnes would be relevant to Wyldes. *See Harrington v. State*, 658 N.W.2d 509, 523 (Iowa 2003). The PCR court improperly quashed Wyldes's discovery requests.

CONCLUSION

WHEREFORE, the Appellant respectfully requests that the Court reverse the dismissal of Wyldes's PCR application, remand the

summarily dismissed claims to create a record, and grant any other relief that may be appropriate in the circumstances.

CERTIFICATE OF COMPLIANCE WITH TYPEFACE REQUIREMENTS AND TYPE-VOLUME LIMITATION FOR BRIEFS

This brief complies with the typeface requirements and type-volume limitation of Iowa Rs. App. P. 6.903(1)(*g*) and 6.903(1)(*i*) because:

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/s/ Elaina Steenson Dated: November 22, 2024

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