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Brief of Amici Curiae, State v. McPhaul, No. 421PA17

Brandon L. Garrett
Duke University

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Abstract

As the field of forensic science grows, new techniques are developed, and our justice system becomes more dependent on the proper application of these techniques, courts play an increasingly crucial role in ensuring that only valid, reliable expert testimony is admitted as evidence. As a result, courts have an obligation to ensure that unscientific forensic testimony is excluded lest it undermine the integrity of the proceedings and, more broadly, the justice system as a whole. Even in the case of forensic techniques that are widely recognized as valid, it is incumbent on courts to ensure that those techniques are performed reliably before admitting the resulting conclusions as evidence against a defendant in a criminal case. As such, we write to emphasize the correctness of the Court of Appeals ruling concerning the inadmissibility of the latent fingerprint evidence, as applied in this case, which correctly enforced this crucial principle. State v. McPhaul, 2017 N.C. App. LEXIS 924, 808 S.E.2d 294 (2017). Importantly, we do not address the issue of the reliability or admissibility of latent fingerprint evidence in general. Indeed, a leading scientific body has recently described latent fingerprint analysis as a foundationally valid technique, but only when applied in a reliable fashion. For such a technique, it becomes even more critical to ensure that the methods underlying such analysis are properly applied. The potential for unreliability and error, which can have devastating effects, lies in the improper application of this technique by particular analysts and in particular cases. In this case, defendant Juan McPhaul was convicted of, inter alia, attempted murder, assault, and conspiracy to commit robbery based, in part, on the testimony of a forensic analyst who described evidence from latent fingerprints. However, the analyst could not provide even a modicum of an explanation for how the fingerprints were compared, for how long, based on what features or criteria, or with any documentation, and could therefore not provide any objective reason to support her conclusion. The trial judge pressed the analyst for more details concerning the analysis, but none were forthcoming. Despite repeated questioning from counsel and from the trial judge, the analyst could not provide a verbal or documentary explanation of: which features of the prints were examined; which features matched; what standard was followed or threshold used to determine that matches were significant; what steps taken to safeguard against known biases in subjective analysis; what training or research supported the analysis; what authority cited for conclusions, including the scientifically indefensible assertion that the latent fingerprints in fact came from the defendant, using terminology that has been definitively rejected in the field of latent fingerprint analysis for years. As a result, the Court of Appeals correctly concluded under Rule 702 of the North Carolina Rules of Evidence that reliable methods and principles were not applied to the evidence in this particular case.

Disciplines

Forensic Science and Technology

Comments

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No. 421PA17 **SIXTEEN-A JUDICIAL DISTRICT**

SUPREME COURT OF NORTH CAROLINA

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STATE OF NORTH CAROLINA,	**)**	
	)	
Plaintiff-Appellant,	**)**	
	)	
v.	**)**	**From Hoke County**
	)	**COA16-925**
JUAN FORONTE MCPHAUL,	**)**	
	)	
Defendant-Appellee.	**)**	

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BRIEF OF AMICUS CURIAE

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Table of Contents

Table of Authorities

CASES

PAGE(S)

STATUTES & RULES

OTHER AUTHORITIES

No. 421PA17 **SIXTEEN-A JUDICIAL DISTRICT**

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BRIEF OF AMICUS CURIAE[1]

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[1] The full roster of amici curiae are listed in the Motion for Leave to File Amicus Curiae Brief. The views expressed herein reflect those of Professor Brandon L. Garrett and the Amicus Curiae, but not those of any academic or other institution to which they belong, such as the Duke University. No person or entity—other than amici curiae, their members, or their counsel—directly or indirectly wrote this brief or contributed money for its preparation.

INTRODUCTION

As the field of forensic science grows, new techniques are developed, and our justice system becomes more dependent on the proper application of these techniques, courts play an increasingly crucial role in ensuring that only valid, reliable expert testimony is admitted as evidence. As a result, courts have an obligation to ensure that unscientific forensic testimony is excluded lest it undermine the integrity of the proceedings and, more broadly, the justice system as a whole. Even in the case of forensic techniques that are widely recognized as valid, it is incumbent on courts to ensure that those techniques are performed reliably before admitting the resulting conclusions as evidence against a defendant in a criminal case. As such, we write to emphasize the correctness of the Court of Appeals ruling concerning the inadmissibility of the latent fingerprint evidence, as applied in this case, which correctly enforced this crucial principle. *State v. McPhaul*, 2017 N.C. App. LEXIS 924, 808 S.E.2d 294 (2017). Importantly, we do not address the issue of the reliability or admissibility of latent fingerprint evidence in general. Indeed, a leading scientific body has recently described latent fingerprint analysis as a foundationally valid technique, but only when applied in a reliable fashion. For such a technique, it becomes even more critical to ensure that the methods underlying such analysis are properly applied. The potential for

unreliability and error, which can have devastating effects, lies in the improper *application* of this technique by particular analysts and in particular cases.

In this case, defendant Juan McPhaul was convicted of, *inter alia*, attempted murder, assault, and conspiracy to commit robbery based, in part, on the testimony of a forensic analyst who described evidence from latent fingerprints. However, the analyst could not provide even a modicum of an explanation for how the fingerprints were compared, for how long, based on what features or criteria, or with any documentation, and could therefore not provide any objective reason to support her conclusion. The trial judge pressed the analyst for more details concerning the analysis, but none were forthcoming.

Despite repeated questioning from counsel and from the trial judge, the analyst could not provide a verbal or documentary explanation of: which features of the prints were examined; which features matched; what standard was followed or threshold used to determine that matches were significant; what steps taken to safeguard against known biases in subjective analysis; what training or research supported the analysis; what authority cited for conclusions, including the scientifically indefensible assertion that the latent fingerprints in fact came from the defendant, using terminology that has been definitively rejected in the field of latent fingerprint analysis for years. As a result, the Court of Appeals correctly

concluded under Rule 702 of the North Carolina Rules of Evidence that reliable methods and principles were not applied to the evidence in this particular case.

ARGUMENT

I. COURTS HAVE AN OBLIGATION TO EXCLUDE UNRELIABLE EVIDENCE

Throughout the country, people have been wrongfully accused or convicted of crimes that they did not commit based on the misapplication of forensic science, resulting not only in the imprisonment of innocent individuals but allowing the guilty to go free, sometimes to commit additional serious crimes. As the National Research Council noted in a 2009 report:

> in some cases, substantive information and testimony based on faulty forensic science analyses may have contributed to wrongful convictions of innocent people. This fact has demonstrated the potential danger of giving undue weight to evidence and testimony derived from imperfect testing and analysis. Moreover, imprecise or exaggerated expert testimony has sometimes contributed to the admission of erroneous or misleading evidence.

Comm. on Identifying the Needs of the Forensic Scis. Cmt., Nat'l Research Council, *Strengthening Forensic Science in the United States: A Path Forward* 4 (2009) ("NAS Report"). Even where forensic testimony is based on valid and reliable methods, there have been reports of wrongful convictions based on the misapplication of those methods. For instance, there have been multiple wrongful convictions based on DNA evidence (traditionally regarded as the gold standard of forensic science) where the techniques were not properly applied. Brandon L.

Garrett & Peter J. Neufeld, *Invalid Forensic Science Testimony and Wrongful Convictions*, 95 Va. L. Rev. 1, 66 (2009) (collecting cases); *see also* President's Council of Advisors on Sci. & Tech., Exec. Office of the President, *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods* 25 (2016) ("PCAST Report") (DNA testing unreliable where "testing labs lacked validated and consistently-applied procedures").

The North Carolina courts serve a vital function in excluding unreliable forensic testimony from the courtroom. This role is enshrined in the North Carolina Rules of Evidence, which state that expert testimony may only be admitted if all of the following apply: "(1) The testimony is based upon sufficient facts or data. (2) The testimony is the product of reliable principles and methods. (3) The witness has applied the principles and methods reliably to the facts of the case." N.C. Gen. Stat. § 8C-1, 702(a) ("Rule 702"). Put another way, where "there is simply too great an analytical gap between the data and the opinion proffered," courts need not, and should not, "admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert." *State v. McGrady*, 368 N.C. 880, 890, 787 S.E.2d 1, 9 (2016) (quoting *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997)). This role is of the utmost importance to the integrity of North Carolina's criminal justice system because criminal convictions, where a defendant's life and liberty are on the line, should not be based merely on the say-

so of a purported expert. Instead, courts should take care to admit evidence only when an expert can demonstrate that her conclusions flowed directly from a valid and reliable forensic technique such that the admission of the evidence is able to withstand subsequent scrutiny.

II. THE RELIABILITY OF LATENT FINGERPRINT ANALYSIS HINGES ON ITS APPLICATION

The body of scientific evidence concerning the reliability of fingerprint evidence has advanced considerably, even in the past decade. Thus, the President's Council of Advisors on Science and Technology found that fingerprint evidence has foundational validity, but that meaningful error rates exist, which vary depending on how well individual examiners conduct their work, the objective proficiency of the individual examiner, and the quality of the evidence at issue. *See* PCAST Report; Am. Ass'n for the Advancement of Sci., *Forensic Science Assessments: A Quality and Gap Analysis; Latent Fingerprint Examination* (2017) ("AAAS Report"). This variance exists because fingerprint analysis is a subjective technique: it relies on the judgment and experience of an individual examiner. Simply put, fingerprint evidence is only as good as the person who examined the prints.

The fact that error rates exist in fingerprint analysis is nothing new. Proficiency studies in fingerprinting have been conducted since the 1970s. Commercial proficiency tests in the mid-1990s attracted widespread attention

because of the large number of participants who made errors on the tests. Brandon L. Garrett and Gregory Mitchell, *The Proficiency of Experts*, 166 U. Penn. L. Rev. 901 (2018) (describing results of 1990s latent fingerprint proficiency tests). Those tests were not designed to assess error rates in general, but they made clear that errors do occur, at a time when latent fingerprint examiners claimed infallibility and that the technique had a reported error rate of "zero." *See* Jonathan J. Koehler, *Fingerprint Error Rates and Proficiency Tests: What They Are and Why They Matter*, 59 HASTINGS L.J. 1077, 1077 (2008); Simon A. Cole, *More Than Zero: Accounting for Error in Latent Fingerprint Identification*, 95 J. CRIM. L. & CRIMINOLOGY 985, 1043, 1048 (2005); *see also, e.g.*, *United States v. Havvard*, 117 F. Supp. 2d 848, 854 (S.D. Ind. 2000), *aff'd*, 260 F.3d 597 (7th Cir. 2001).

Practices began to change in the wake of the high-profile error in the Brandon Mayfield case, in which a Portland, Oregon lawyer was falsely accused of playing a role in the Madrid terrorist bombing based on erroneous fingerprint matches by multiple analysts. An FBI expert had called it a "100 percent" certain match, but, as Spanish authorities subsequently discovered, the expert's conclusions, as well as those of the expert's concurring colleagues, were all wrong. PCAST Report at 28; U.S. Department of Justice, Office of the Inspector Gen., *A review of the FBI's Handling of the Brandon Mayfield Case* 1-4 (2006). In response to the error, the Department of Justice made a series of recommendations

for improved handling of latent fingerprint analysis at the FBI. Office of the Inspector Gen., U.S. Dep't of Justice, *A Review of the FBI's Handling of the Brandon Mayfield Case* 9-10, 270-71 (2006).

The National Academy of Sciences issued landmark findings on forensic disciplines in a 2009 Committee report. *See* NAS Report. Those findings included statements that, while fingerprint comparisons have served as a valuable tool in the past, the methods used in the field—the ACE-V method, for Analysis, Comparison, Evaluation, and Verification—are "not specific enough to qualify as a validated method for this type of analysis." *Id.* at 142. The report found that merely following the steps of that "broadly stated framework" "does not imply that one is proceeding in a scientific manner or producing reliable results." *Id.* It highlighted that "sufficient documentation is needed to reconstruct the analysis" in which examiners engage. *Id.* at 143. In addition, it asserted that error rates exist, and none of the variables upon which fingerprint examiners rely have been "characterized, quantified, or compared." *Id.* at 144. Absent any statistical data, fingerprint examiners are relying on "common sense" or "intuitive knowledge," but not validated information or research. *Id* at 144-45.

The Presidential Council of Advisors on Science and Technology 2016 report concluded that while "foundationally valid," latent fingerprint analysis should never be presented in court without evidence of its error rates and of the

proficiency or reliability of not just the method, but the particular examiner using the method. PCAST Report at 6. The PCAST Report noted that error rate studies have now been conducted on latent fingerprint analysis. *Id.* at 9-10. In particular, two black box studies (or studies that independently test experts for errors using realistic materials) were conducted that were methodologically sound and found nontrivial error rates: the false-positive error rate "could be as high as 1 error in 306 cases," based on an FBI study; or a rate of "1 error in 18 cases," based on a study by the Miami-Dade police laboratory. *Id.*

The AAAS Report added that fingerprint examiners should avoid statements that contribute to the "misconceptions" shared by members of the public due to "decades of overstatement by latent print examiners." AAAS Report at 11. Specifically, they asserted that terms like "match," "identification," "individualization," and other synonyms should not be used by examiners, nor should they state any conclusions that "claim or imply" that only a "single person" could be the source of a print. *Id.* Instead, latent fingerprint examiners should at most state that they observe similarity between a latent print and a known print, and that a donor cannot be excluded as the source. *Id.*

III. THE TESTIMONY AT TRIAL DOES NOT MEET THE 702(A)(2)-(3) STANDARD

A. The Fingerprint Examiner Testified to Scientifically Indefensible Conclusions

In this case, the Fayetteville Police Department latent-print examiner testified that fingerprints found on certain pieces of evidence—a car, two Domino's pizza boxes, and a Domino's chicken wing box—belonged to McPhaul. Defendant-Appellant's Brief at 8, *McPhaul*, 808 S.E.2d 294, 2016 WL 6312099 at *8. Specifically, the examiner stated that "[i]t was the left palm of Juan Foronte McPhaul that was found on the back fender portion of the vehicle." (T p 608). Similarly, the examiner stated that the print on the Domino's chicken wing box was "[t]he right middle finger of Juan Foronte McPhaul," as were the prints on a bent Domino's pizza box, while it was his "left middle finger" on a non-bent Domino's pizza box. (T pp 613-615).

Those unequivocal conclusions were scientifically improper. They extend farther than the guidance from leading forensic organizations—it was an unequivocal statement that the defendant left the print in question. The national Scientific Working Group of Friction Ridge Analysis, Study and Technology ("SWGFAST") has issued guidance that a latent fingerprint examiner should state, in extremely strong but probabilistic terms, that "[i]ndividualization of an impression to one source is the decision that the likelihood the impression was

made by another (different) source is so remote that it is considered as a practical impossibility." Expert Working Grp. on Human Factors in Latent Print Analysis, Nat'l Inst. of Standards & Tech. & Nat'l Inst. of Justice, *Latent Print Examination and Human Factors: Improving the Practice through a Systems Approach* 72 (2012). That language is incredibly strong and scientific groups have pointed out real concerns with it, questioning what is meant by "practical impossibility" and the potentially misleading nature of the term "individualization," which might convey that one can match a print "to the exclusion of all others" in the population. *See id.* Most recently, the AAAS Report stated that latent fingerprint examiners should not use terms that imply that a single person was the source of a latent fingerprint. AAAS Report at 11. Further, the International Association for Identification ("IAI"), the largest professional body in the world dealing with fingerprint identification forcefully stated in 2009 that members should not state "conclusions in absolute terms when dealing with population issues." Robert Garrett, Letter to IAI Membership (Feb 19, 2009), *available at* http://www.clpex.com/legacy/TheDetail/300-399/TheDetail394.htm.

The expert in the *McPhaul* case not only failed to use any accepted language, but went further, by categorically stating that it was McPhaul's print in an unqualified conclusion that admitted no possibility of error. This unqualified statement was highly scientifically improper. Nor was any description of the

comparison process provided by the expert, nor the error rate, nor any other information provided to qualify the conclusion, as counseled by the PCAST Report.

B. The Fingerprint Testimony Presented Against McPhaul Was Severely Flawed

The testimony of the Fayetteville Police Department latent-print examiner presented in this case was wholly subjective and failed to provide any description of the process followed, the criteria relied on, the evidence documented, or how conclusions were reached. The examiner apparently verified or reviewed the work of a different examiner, but we do not know whether this review was cursory or not. We do not have any reason to believe that it was done "blind;" indeed, the contrary was the case and the examiner knew that the first examiner had found a "match" when reviewing the work. (T p 625). It is particularly important that a verification be conducted in a blind fashion for a subjective and experienced-based analysis, like latent fingerprint comparison, so that the verifying review is truly independent and not simply a rote confirmation of the work that was already done. The myriad flaws in the testimony, which did not follow any of the scientific and professional recommendations made in the field, include:

1. ***Unknown Comparison Process***. The expert was unable to say what features of the prints were compared, what process was followed (the examiner did not even describe the general ACE-V steps to be followed), or the duration of the

examination. (T p 634). Both counsel and the judge repeatedly asked how the comparison was conducted and nothing responsive was provided. For example, the judge asked, "[w]hat did you do to analyze them?" and the examiner responded, "I did comparisons—side by side comparisons . . ." (T p 633). She could not say what points were found on the prints. (T p 634). No information about that comparison process was provided in writing or verbally at trial.

We do know that this analyst said that the work involved "side by side" comparison. (T p 633). That alone is a troubling red flag. Examining prints side by side can lead to circular reasoning and errors, which is why laboratories and analysts that follow best practices, document features in the candidate print first before conducting further analysis. Aside from testifying to the use of a troubling "side by side" comparison, the analyst did not provide any information or documentation about the process that was followed.

2. ***Lack of Documentation***. The examiner provided no documentation of the comparison process. The PCAST Report found that "examiners must complete and document their analysis of a latent fingerprint *before* looking at any known fingerprint, and should separately document any additional data used during comparison and evaluation." PCAST Report at 135. We do not know how many features were relied upon, whether there were in fact distortions or inconsistencies between these prints, or what process was followed during the examination.

Moreover, best practices involve documenting the identified features in the latent print before turning to the suspect print and examining its features.

3. ***Methods of Comparison***. Beyond failing to explain or document the comparison process. when asked questions about how the process was conducted in practice, the expert testified that it involved looking "back and forth," agreeing that she proceeded by "going back and forth until [] satisfied" that the prints were a match, and that "[w]hat you're looking for are those same characteristics and sequence of similarities." (T pp 604, 624-25). The judge, recognizing that the expert had not "testified as to what she did and how she reached these conclusions," (T p 631), probed further, and was able to elicit only that the expert followed "a comparison process" and conducted an "examination." (T p 632).

4. ***No Objective Criteria for Reaching the Conclusion***. The examiner explained that a conclusion on latent fingerprint evidence is reached when "I believe there's enough sufficient characteristics and sequence of the similarities." (T p 638). That statement reflected a purely subjective view of latent fingerprint work. No objective criteria or standard was provided for how one reaches a conclusion. The examiner acknowledged there is no "set point similarity" in the field, or a set number of points that one must find in latent fingerprints, or "set standard" for how much similarity an examiner must find. (T p 624).

5. ***Unscientific Ultimate Conclusion Testimony***. The expert simply reiterated that "[m]y conclusions, your Honor, is that the impressions made belonged to Mr. McPhaul." (T p 632). That unqualified conclusion was unsupported by any scientific research. Terms like "match," "reasonable scientific certainty," and "individualize" have all been criticized as scientifically misleading, but this expert went much farther to state that the fingerprints in fact came from McPhaul.

Such categorical source conclusions are not and cannot be supported by the principles and methods of latent fingerprint analysis. AAAS Report at 11. Those methods permit an examiner to observe similarities and to conclude that a donor cannot be excluded as a source, but they do not permit an examiner to conclude that an individual was in fact the definite source. *Id*.

Such a categorical claim is scientifically indefensible and highly prejudicial. The PCAST Report noted: "courts should never permit scientifically indefensible claims such as: "zero," "vanishingly small," "essentially zero," "negligible," "identification to the exclusion of all other sources" or a chance of error so remote as to be a "practical impossibility."" PCAST Report at 19.

6. ***No Error Rate or Proficiency Information***. No error rate or even an acknowledgement that another person's prints could have made the marks was

presented to the jurors in the case. The PCAST Report highlighted the importance of an expert clearly reporting scientifically sound error rates to the factfinders.

There must also be rigorous proficiency testing of examiners. A particular type of proficiency test is conducted regularly by the leading commercial provider, Collaborative Testing Services Inc. ("CTS") on fingerprint comparisons. However, by CTS's own admission, these tests are not designed to measure error rates, and the results cannot be used to provide assurance that examiners' conclusions are accurate. Collaborative Testing Servs. Inc., Statement on the Use of Proficiency Testing Data for Error Rate Determinations 2-3 (Mar. 2010), *available at* http://www.cts-forensics.com/assets/news/ctserrorratestatement.pdf. No information was provided to the jurors concerning the proficiency of the examiner who testified.

7. ***Cognitive Bias***. The examiner acknowledged that the initial examination of the prints, conducted by another examiner, was not verified blind, and that instead, she knew what the first examiner had already concluded when she made her own review. (T p 625). Both the lack of a blind verification and the non-documented and unstated process used by the analyst create heightened risk that cognitive bias leads to errors. A body of studies have shown that there are real risks of error in forensic techniques, including in fingerprint comparisons, when examiners are given contextual information, including that about judgments by

other experts. Itiel E. Dror, David Charlton, Ailsa E. Peron, *Contextual Information Renders Experts Vulnerable to Making Erroneous Identifications*, 74 Forensic Sci. Int'l. 156 (2006).

C. The Court of Appeals Correctly Applied Rule 702 to Find Error in Admission of the Fingerprint Testimony at Trial

The adoption of Rule 702 to conform to Federal Rule of Evidence 702 and the holding in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 591 (1993) included an additional requirement that evidence be based on "principles and methods" that are "reliably applied" to the facts of a case, and was intended to make the gatekeeping task of a judge more rigorous. Fed. R. Evid. 702(d) (requiring that "the expert has reliably applied the principles and methods to the facts of the case"); Comm. on Rules of Practice and Procedure, *Report of the Advisory Committee on Evidence Rules* (1999). That requirement, focusing on the application of reliable principles and methods, is particularly important for those types of expert evidence that rely on the subjective judgment and experience of the expert. This expert could not explain the principles and methods followed in any detail, much less defend their reliability.

For that reason, the Court of Appeals, in this matter, properly focused its review on the conclusions that the expert reached: that the crime scene prints were "identified as" the same as those taken from the defendant. *McPhaul*, 2017 N.C. App. LEXIS 924 at *24, 808 S.E.2d 294 at 305 (quoting the expert testimony).

The Court highlighted that in 2011, the North Carolina legislature amended Rule 702 to adopt the "federal standard," including language requiring that expert testimony "applied" principles and methods "reliably" in a case. *Id.* at *20-*21, 303–304. The full rule states:

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

N.C. Gen. Stat. § 8C-1, Rule 702. When the expert here testified about how she reached conclusions in the case, she could say only that this was done based on "[m]y training and experience." *McPhaul*, 2017 N.C. App. LEXIS 924 at *24, 808 S.E.2d 294 at 304. The Court of Appeals concluded that the expert provided no "detail in testifying how she arrived at her actual conclusions *in this case*." *Id.* at *25, 305. As a result, the panel held it was error to admit the testimony, as there was no evidence that methods and principles were reliably applied. *Id.* (finding error to be harmless, however, given other evidence in the case tying the defendant to the crime scene).

As discussed in the previous section, however, there are many additional reasons why this testimony was unreliable and wholly scientifically indefensible.

The Court of Appeals did not cite to the PCAST Report or discuss studies of error rates in latent fingerprinting. Likewise, there was no discussion of how the examiner reached unsupported conclusions and the court failed to discuss the possibility of an error and the examiner's failure to comply with the current guidance in the field.

In addressing the flaws in the testimony in this case, our analysis is limited to the *application* of fingerprint analysis to the facts of the case. Fingerprint testimony has been admitted in federal and state courts for decades, both before and after *Daubert* and the modern Rule 702 were adopted federally and in North Carolina. *See, e.g.*, Brandon L. Garrett and Gregory Mitchell, *How Jurors Evaluate Fingerprint Evidence: The Relative Importance of Match Language, Method Information and Error Acknowledgement*, 10 J. Empirical Legal Stud. 484 (2013). But it is precisely because courts have come to accept the validity of such testimony that they have often not examined its application in particular cases or questioned its reliability when techniques are not properly applied in a particular case. Courts have instead tended to examine only the past history of general acceptance. *See* Brandon L. Garrett and M. Chris Fabricant, *The Myth of the Reliability Test*, 86 Fordham L. Rev. 101 (2018). That is why the opinion of the Court of Appeals in this case is so critical and should be affirmed to demonstrate

the necessary analysis and considerations courts should apply in determining admissibility of fingerprint analysis evidence.

CONCLUSION

For the foregoing reasons the Court should affirm the Court of Appeals' decision excluding the improper testimony on latent fingerprints.

Respectfully submitted the 30th day of July, 2018.

COUNSEL FOR AMICI CURIAE

/s/ James B. Gatehouse
James B. Gatehouse
N.C. State Bar No. 22811
Rayburn Cooper & Durham, P.A.
227 West Trade Street, #1200
Charlotte, NC 28202
(704) 334-0891
bgatehouse@rcdlaw.net

N.C.R. App. P. 33(b) Certification:

I certify that all of the attorneys listed below have authorized me to list their names on this document as if they had personally signed it.

/s/ Sharon Katz
Sharon Katz
(admission pro hac vice pending)
New York Bar No. 1788090
Davis Polk & Wardwell LLP
450 Lexington Avenue
New York, NY 10017

(212) 450-4000
sharon.katz@davispolk.com

/s/ Matthew R. Brock
Matthew R. Brock
(admission pro hac vice pending)
New York Bar No. 5347489
Davis Polk & Wardwell LLP
450 Lexington Avenue
New York, NY 10017
(212) 450-4000
matthew.brock@davispolk.com

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing Brief of Amicus Curiae has been electronically filed with the North Carolina Supreme Court and served this day by email and by depositing a copy thereof in a depository under the exclusive care and custody of the United States Postal Service in a first-class postage-prepaid envelope properly addressed as follows;

William P. Hart, Jr.
Assistant Attorney General
P.O. Box 629
Raleigh, NC 27602
whart@ncdoj.gov

Attorney for the State of North Carolina

Amanda S. Zimmer
Assistant Appellate Defender
Office of the Appellate Defender
123 West Main Street, Suite 500
Durham, NC 27701
amanda.s.zimmer@nccourts.org

Attorney for Mr. McPhaul

This the 30th day of July, 2018.

/s/ James B. Gatehouse
James B. Gatehouse