THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

THE UNITED STATES OF AMERICA,

Plaintiff,

v.

PERIS DWIGHT SMITH,

Defendant.
_____/

Case No. 1:16-CR-215-02

Hon. Robert J. Jonker
Chief U.S. District Court Judge

DEFENDANT'S RESPONSE TO GOVERNMENT'S MOTION TO ADMIT FINGERPRINT EXPERT

NOW COMES the Defendant, Peris Dwight Smith, through counsel, and offers this response to the government's motion in limine to admit testimony regarding fingerprint evidence under Federal Rule of Evidence 702. *See* RE. 32: Gov. Motion in Limine on Fingerprint Expert, PageID 81. Mr. Smith opposes the government's motion to admit the evidence; the defense does not object to a *Daubert* hearing on this matter. Data and scholarly evidence on the issue of fingerprint matching show that evidence in this area cannot meet the standard for admission under Rule 702 and *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993).

Procedural Background

This case began on October 27, 2016, with an indictment against Latoya Durant. RE. 1: Indictment, PageID 1-5. The indictment charged five counts related to false claims and theft, essentially addressing claims for filing false tax returns. On December 1, 2016, the government filed a superseding indictment, bringing Mr. Smith into the case and charging him and Ms. Durant with the original five counts and adding four counts of aggravated identity theft and a forfeiture allegation against Mr. Smith. RE. 14: Superseding Indictment, PageID 35-45. The superseding indictment charged Mr. Smith with conspiring to make false claims (a violation of 18 U.S.C. § 286), two counts

of making false claims against the United States (a violation of 18 U.S.C. § 287), two counts of theft of government property (a violation of 18 U.S.C. § 641), and four counts of aggravated identity theft (a violation of 18 U.S.C. § 1028A(a)(1)). RE. 14: Superseding Indictment, PageID 35-43.

Authorities arrested Mr. Smith on December 7, 2016, in the Northern District of Georgia. RE. 18: Rule 5 Documents, PageID 51. On the same day, he had an initial appearance in Georgia. *Id.* He had his first appearance in the Western District of Michigan on January 3, 2017; the Court continued Mr. Smith's bond. RE. 23: Minutes, PageID 68. On January 4, 2017, the Court appointed counsel to represent Mr. Smith. The Court conducted Mr. Smith's arraignment on January 10, 2017. RE. 30: Minutes of Arraignment, PageID 79.

Mr. Smith filed a motion to suppress evidence on March 13, 2017. RE. 56: Motion to Suppress, PageID 239; *see also* RE. 58: Amended Brief, PageID 255. Also on March 13, the Court entered a consent order granting an attorney substitution. RE. 60: Consent Order, PageID 271. Mr. Smith wrote to the Court on March 16, 2017, requesting that the Court allow Demetrius Smith, Mr. Smith's brother, to represent him in place of his court-appointed attorney of the time. RE. 64: Pro Se Motion to Substitute Attorney, PageID 282; RE. 76: Order on Motion to Substitute Counsel, PageID 369. The Court conducted a hearing on the motion on March 22, 2017. RE. 65: Minutes of Hearing, PageID 285. The Court ruled against allowing Mr. Demetrius Smith to represent Mr. Smith; it also ruled in favor of relieving Mr. Smith's court-appointed counsel of the time and appointing new counsel. RE. 76: Order on Motion to Substitute Counsel, PageID 369-70. On April 28, 2017, the Court appointed undersigned counsel to represent Mr. Smith. The Court then set a deadline of May 31, 2017, for undersigned counsel to address the motion to suppress, which earlier counsel had filed, and the government's pending motions in limine. RE. 78: Order, PageID 391. These latter motions relate to the government's proffered fingerprint evidence, discussed here, and handwriting evidence that Mr. Smith will discuss in a separate filing.

Legal Discussion

Under Federal Rule of Evidence 702, a qualified expert may offer testimony if the expert's specialized knowledge will help the jury understand evidence or determine a fact in issue, the testimony rests on sufficient facts or data, the testimony rests on reliable principles and methods, and the expert has applied the principles and methods to the facts of the case in a reliable way. Fed. R. Evid. 702. The 1975 introduction of the Federal Rules of Evidence included a simplified version of Rule 702: a qualified expert could testify "[i]f scientific, technical, or other specialized knowledge" would assist the jury in understanding evidence or determining a fact in issue. Fed. R. Evid. 702 (1975). This initial version of the rule bumped against the earlier standard for admission of expert testimony that had grown out of the D.C. Circuit's decision in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923). The *Frye* standard, springing from this circuit decision early in the twentieth century, focused on general acceptance of a theory's reliability within the relevant scientific community. *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 584 (1993).

The Supreme Court stepped in and fleshed out the meaning and application of Rule 702 in *Daubert* in 1993. The Court supplanted the *Frye* standard, stating that Rule 702 governs admission of expert testimony and giving district courts factors to consider in assessing whether the reasoning and methodology undergirding the proffered testimony qualifies as scientifically valid and can apply to the facts in issue. *See id.* at 588-89, 592-93. Factors for district courts to consider include: 1) whether the theory can be or has been tested; 2) whether it has undergone peer review and publication; 3) the known or potential error rate; 4) general acceptance in the relevant scientific community (which can still play a role despite the undermining of *Frye*); and 5) the existence and maintenance of standards and controls. *Id.* at 593-94; Fed. R. Evid. 702 advisory committee's note. The Court emphasized the flexibility of the inquiry. *Daubert*, 509 U.S. at 594. Analysis must rest on the methods and principles—

not the conclusions generated. *Id.* at 595. The Court applied this reasoning to "specialized knowledge"—beyond "scientific knowledge"—in *Kumho Tire v. Carmichael*, 526 U.S. 137, 141 (1999).

The Court has recognized the inevitable evolution of scientific principles. *Daubert*, 509 U.S. at 597. In the past decade, awareness has risen remarkably in the realm of the unreliability of fingerprint evidence and the inability of such evidence to satisfy the *Daubert* standard for admission. In 2009, the National Research Council of the National Academies published *Strengthening Forensic Science in the United Stats: A Path Forward.* In this work, the Council specifically addressed the reliability of "friction ridge analysis" (fingerprint evidence). National Research Council, *Strengthening Forensic Science in the United States: A Path Forward* 136-45 (2009) (hereinafter *Forensic Science*); *available at* https://www.ncjrs.gov/pdffiles1/nij/grants/228091.pdf.

A. The National Research Council has pointed out several flaws in friction ridge analysis and fingerprint-analysis methodology; these flaws militate against admission of such evidence.

In *Forensic Science*, the National Research Council discussed the history of friction ridge analysis. People have used friction ridge analysis for identification purposes for over a century. *Forensic Science* 136. This friction ridge analysis—fingerprint analysis—involves "experience-based comparisons of the impressions left by the ridge structures of volar (hands and feet) surfaces." *Id.* Training of examiners varies: some examiners undergo formal training while others may participate in informal mentoring; some training programs may consist of a one or two-week course. *Id.* The International Association for Identification (IAI) and the Scientific Working Group on Friction Ridge Analysis, Study and Technology (SWGFAST) offer training guidelines. *Id.* at 136-37. The fingerprint-analysis community varies in its use of IAI certification; some organizations require it while others do not. *Id.* at 137.

The fingerprint-analysis community refers to the examination process with an acronym: ACE-V (Analysis, Comparison, Evaluation, and Verification). *Id.* Literature has referred to this method

since 1959. *Id.* The analysis step involves examination of the unidentified print—often in digital form. *Id.* Multiple factors affect the quality and quantity of detail for the print and the variability of the impression, including skin condition, residues, mechanics of touch, the nature of the surface touched, the development technique (chemical signature of the technique and its consistency), the capture technique (film, digital, lifting material), and the size of the print or percentage of surface available for comparison. *Id.* at 137-38. An examiner must then analyze the known print (the one obtained, for example, from a fingerprint database). *Id.* at 138. The same factors that may affect the details of an unknown print can affect details related to a known print. *Id.*

Unknown prints of insufficient detail and poor-quality known prints do not continue in the process. *Id.* An examiner will deem them unsuitable for comparison. *Id.* Prints with sufficient detail, however, continue in the process and progress to undergo comparison. *Id.* Visual comparison involves discerning and comparing details that correspond between the latent/unknown and known prints. *Id.* After making his or her comparisons, the examiner evaluates the agreement of the friction ridge formations of the latent and known prints. *Id.* The examiner evaluates the sufficiency of the detail present to establish a potential identification. *Id.* An examiner makes an identification when, based on the examiner's experience, sufficient quantity and quality of friction ridge detail agrees for the latent and known prints. *Id.* If sufficient *disagreement* exists, the examiner will find "source exclusion" for the latent and known prints. *Id.* If the examiner cannot conclude that identification *or* exclusion exists, they will describe the comparison as inconclusive. *Id.* The verification stage involves another qualified examiner repeating the process and reaching the same conclusion. *Id.* The second examiner may know the first examiner's conclusions beforehand. *Id.*

Fully-automated fingerprint-identification systems exist, but "the assessment of latent prints from crime scenes is based largely on human interpretation." *Id.* at 139. The ACE-V method does *not* specify particular measurements or a standard test protocol; examiners must make subjective

assessments throughout the process. *Id.* In the United States, the threshold for making a match, an identification, "is deliberately kept subjective, so that the examiner can take into account both the quantity and quality of comparable details." *Id.* Given this subjectivity, "the outcome of a friction ridge analysis is not necessarily repeatable from examiner to examiner." *Id.* Research "has shown that experienced examiners do not necessarily agree with even their own past conclusions when the examination is presented in a different context sometime later." *Id.* Such "subjectivity is intrinsic to friction ridge analysis." *Id.*

Such subjectivity also creates a problem for fingerprint evidence when it comes to jumping the *Daubert* hurdles: fingerprint analysis cannot make it over the admissibility threshold. As the National Research Council pointed out, the criteria for fingerprint matches are difficult to define "because they depend on an examiner's ability to discern patterns (possibly complex) among myriad features and on the examiner's experience judging the discriminatory value in those patterns." *Id.* at 140. The clarity of the prints presented for comparison constitutes a major consideration. *Id.* Ten-print fingerprint cards, which tend to offer good clarity, may allow even automated pattern-recognition software, "which is not as capable as human examiners," to make correct matches often enough "to enjoy widespread use." *Id.* When dealing with a single latent print, however, interpretation "becomes more challenging and relies more on the judgment of the examiner." *Id.* Practitioners could improve the reliability of the ACE-V process by formulating specific measurement criteria. *Id.* Such "criteria become increasingly important when working with latent prints that are smudged and incomplete, or when comparing impressions from two individuals whose prints are unusually similar." *Id.*

The fingerprint community itself "assert[s] that the ability to see latent print detail is an acquired skill attained only through repeated exposure to friction ridge impressions." *Id.* The community favors lengthy apprenticeships "to develop a sense of the rarity of features and groups of features." *Id.* The fingerprint community in the United States had, at least in 2009, "eschewed

numerical scores and corresponding thresholds, because those developed to date have been based only on minutia, not on the unique features of the friction ridge skin." *Id.* at 141. Thresholds based on counting the number of features that correspond, considered by some to represent a more objective method, "are still based on primarily subjective criteria—an examiner must have the visual expertise to discern the features . . . and must determine that they are indeed in agreement." *Id.* A simple point count will not suffice for characterizing the detail present in a latent print; a more nuanced approach is necessary, and can likely be determined. *Id.*

Practitioners have discussed the use of statistics to assign match probabilities based on population distributions of friction ridge features. *Id.* Current published statistical models, as of 2009, however, do not offer more than counts of corresponding minutia and do not take clarity into consideration. *Id.* This area presents a subject "ripe for additional research." *Id.* The fingerprint "community actively discourages its members from testifying in terms of the probability of a match." *Id.* Yet in testifying to a "match," an examiner communicates "the notion that the prints could not possibly have come from two different individuals." *Id.* at 142. Fingerprint examiners generally testify in terms of absolute certainty. *Id.*

With these considerations in mind, the *Daubert* factors militate against admission of fingerprint evidence: testability, the error-rate factor, acceptance in the community, and the lack of maintenance of objective standards and controls (Mr. Smith will address peer review later). As discussed, the same examiner may reach different results in a given case if that examiner returns to their earlier work and compares the prints a second time. Subjectivity of this level defies accurate testing and indicates a lack of objective standards and controls. The fingerprint community disclaims matching probability and thus the calculation of a potential rate error. In terms of the community, the fingerprinting community may accept these techniques, but that community has a vested professional interest in maintaining the status quo. Admitting fingerprint evidence means these fingerprint examiners can

maintain their industry. The wider scientific community, however, such as researchers on the National Research Council's relevant committees, express doubts about the reliability of the current fingerprint-matching methods.

Scholars have argued that fingerprint analysis lacks "validity testing" and a dearth of difficult proficiency tests exists. *Id.* The area lacks a statistically valid model and validated standards for declaring a match. *Id.* Claims of absolute, certain confidence in identification thus have no place. *Id.* Scholars suggest that *Daubert* requires fingerprint examiners to exhibit greater "epistemological humility." *Id.* Claims of "absolute" and "positive" identifications should give way to more modest claims about the significance of a "match." *Id.*

The National Resource Council saw potential value in fingerprint analysis, but rejected the idea of an error rate of zero. *Id.* at 142-43. In its memorandum on the issue, the government relies on this rejected, mythological error rate to argue in favor of admission of the evidence here. *See* RE. 33: Gov. Br. in Support of Fingerprint Expert, PageID 88. The government fails to address the National Resource Council's conclusion that the ACE-V methodology "is not specific enough to qualify as a validated method for this type of analysis." *Forensic Science* 142.

The ACE-V methodology "does not guard against bias; is too broad to ensure repeatability and transparency; and does not guarantee that two analysts following it will obtain the same results." *Id.* Simply "following the steps of ACE-V does not imply that one is proceeding in a scientific manner or producing reliable results." *Id.* This conclusion bears directly—and negatively—on the question of admissibility under *Daubert*.

One scholarly paper involved a review of the scientific evidence on the validity of the ACE-V method and "found none." *Id.* at 143. Scholars point to the problem of documentation: the fingerprint-analysis community in 2009 had no requirement for examiners to document the features within a latent print that supported their reasoning and conclusions. *Id.* Critics emphasized this

deficiency, pointing to the need for sufficient documentation to reconstruct the analysis. *Id.* With documentation, examiners would have a better chance at creating transparent records of their method, which could provide courts with additional information for assessing the reliability of the methods in specific cases. *Id.*

Ultimately, the most fundamental bases of fingerprint analysis require further research. Whether fingerprints truly are unique has not been proved. *Id.* at 144. The field needs more research into ridge properties as a whole. *Id.* It also needs more information on distortion and quality of latent prints. *Id.* at 145. While one can hope that the friction ridge analysis community took these 2009 findings and suggestions to heart and that practices have improved since 2009, one cannot escape the subjectivity and methodological flaws the National Research Council found in the practice area as a whole.

B. Case law does not undermine the conclusion that the National Research Council's findings disfavor admission of fingerprint evidence, and studies in the area support disallowing the evidence.

Many of the cases the government cites in its memorandum on this issue pre-date the National Resource Council's publication of its conclusions. *See* RE. 33: Gov. Br. in Support of Fingerprint Expert, PageID 85. In offering more recent cases, the government proffers district-court cases. *Id.* The government recognizes the unsettled nature of the question in the Sixth Circuit. *Id.*

The cases the government cites do not necessarily consider the National Research Council's specific findings, which call into question older assumptions. In *United States v. Fell*, No. 5:01-CR-12-01 (D. Vermont Sept. 13, 2016), for example, the court assumes that "little scientific debate" exists over the uniqueness and persistence of fingerprints. RE. 33-1: Gov. Br. in Support of Fingerprint Expert, Exhibit 1, PageID 94. The court presents no citations when asserting that the scientific community does not debate these points. The National Research Council, on the other hand, posits only that "*[s]ome* scientific evidence supports the presumption that friction ridge patterns are unique

to each person and persist unchanged throughout a lifetime." *Forensic Science* 143 (emphasis added). *Some* evidence hardly equates to a lack of scientific debate.

In recognizing the fingerprint-driven failures of justice in the Mayfield case, which related to the 2004 Madrid train bombings, the *Fell* court identified a major failure of modern fingerprint analysis. *See* RE. 33-1: Gov. Br. in Support of Fingerprint Expert, Exhibit 1, PageID 96-97. But instead of exploring the failures of the field, the court looked to FBI-funded and driven studies of fingerprint examination. *See id.* at 98-100, 105, 107. These studies do not constitute objective scholarly inquiry. The FBI has a vested interest in perpetuating fingerprint evidence, so its funding of these studies raises significant questions about the reliability and biases of these studies. Even putting aside the biases and conflicts of interests in these studies, the studies themselves undermine a finding that fingerprint analysis rests on reliable methods and can satisfy the *Daubert* criteria.

Examples of the flaws highlighted by these studies appear in the 2012 study by Bradford Ulery and others that the *Fell* court cited: "Repeatability and Reproducibility of Decisions by Latent Fingerprint Examiners." *See* RE. 33-1: Gov. Br. in Support of Fingerprint Expert, Exhibit 1, PageID 99; *see also* Bradford T. Ulery, et al., "Repeatability and Reproducibility of Decisions by Latent Fingerprint Examiners," *PLOS One* 7(3) (Mar. 12, 2012), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3299696/. The study recognizes variability and the "categorical" decision making by examiners, especially in "borderline" cases. Ulery, "Repeatability and Reproducibility of Decisions by Latent Fingerprint Examiners," at Abstract. The study recognizes that examiners may change their decisions regarding an examination in response to "biasing circumstances." *Id.* at Introduction.

The study makes clear the subjective nature of fingerprint analysis. Ulery states, "We can expect repeatability to vary from examiner to examiner, and may expect reproducibility to vary by subpopulation (such as those with similar training, or by organization)." *Id.* at Background. He explains that reviewers can expect that, "when the quality and quantity of corresponding information

present in a pair of images is either very high or very low, repeatability and reproducibility will be higher than when the information content is marginal or when the examination is complex due to factors such as distortion or background issues." *Id.* Ulery suggests that "[l]ack of repeatability for complex or borderline decisions may be attributed to differences in the examiner's assessments of features in each print, or to differences in how the examiner uses those features in making value or comparison decisions." *Id.* at Discussion. Examiners vary in their assessments of the quality and quantity of features in a given print. *Id.*

Fingerprint analysis simply presents ambiguity and subjectivity. Ulery points out that differences in assessments of features may be especially critical when key features are ambiguous. *Id.* If an "examiner reaches a different decision without changing assessments of the quality and quantity of features, then the examiner is not applying decision criteria consistently." *Id.* This lack of consistency may arise in part because of a lack of quantitative criteria and limited qualitative criteria for decisions: in some cases, an examiner may not readily recognize whether a conclusion or inconclusive decision is appropriate. *Id.* Examiners may also fail to repeat their assessments because of inadvertent mistakes, changes in outside influence or bias, or changes in expertise over time. *Id.* While Ulery recognizes these factors and their potential application to casework, he argues that the study design obviated a need to consider contextual bias and changes in expertise; these factors, he argues, would not present significant issues in the context of the study's findings. *Id.* These factors, however, and as Ulery recognized, exist in the real world of case work, undermining reliability.

Much of the observed lack of reproducibility, in Ulery's view, "is associated with prints on which individual examiners were not consistent, rather than persistent differences among examiners." *Id.* Regardless of whether inconsistencies relate to an individual examiner or arise among multiple examiners, they represent subjectivity and undermine reliability. Ulery recognizes that examiners differ as to which features are present in a print; on the relative costs or implications of decisions (Ulery

cites as examples "weighing the benefit of a true positive against the cost of a false positive, or against the cost of an inappropriate inconclusive decision"); as to whether the information present is sufficient to support a specific decision, while agreeing on features and costs; in skill and experience; and in their use of terminology. *Id.* The study suggests a lack of metrics in place to address consistency. *Id.* (suggesting implementing metrics). Ulery admonishes that "[t]here is a need for dialog in the community to address the extensive differences in terminology and procedures in the latent print community." *Id.* These variations undermine reliability.

The study also provides a specific glimpse at the limits of peer review in this context. At its close, the study includes a footnote on competing interests. Regarding peer review, this note states that "[t]he relevant forensic science community is relatively small and the proposed reviewers are colleagues whose work the authors highly regard." It goes on, "[t]he authors declare no financial interest with any of these reviewers; however, some authors are working on the same working groups (professional committees) as the proposed reviewers." While peer review may involve small or limited communities, the community defined in the footnote shares interests and carries related "investments" in fingerprint analysis. Such limited review carries less weight than review by unrelated, objective reviewers like those involved in the National Research Council's review.

Epistemologically, defining science presents difficult issues. *See, e.g.*, Brian A. Woodcock, "The Scientific Method" as Myth and Ideal, Science & Education 23(10): 2069-2093 (Oct. 2014) (attacking idea of a unified "scientific method"). One cannot eliminate biases completely in a discipline, even science, but science strives to minimize subjectivity. *See id.* One can argue that higher levels of subjectivity detract from a practice's or study area's claims to scientific methods. Ulery's recognition of the inherent subjectivity of fingerprint analysis belies his claims of a "scientific basis for fingerprint examination." Ulery, "Repeatability and Reproducibility of Decisions by Latent Fingerprint Examiners," at Introduction. The area, at best, qualifies as "specialized knowledge"—not science.

And even as specialized knowledge, it fails the *Daubert* standard for admission for the reasons identified here and in the National Research Council report.

While acknowledging the need to jettison practices that come to be recognized as flawed, the *Fell* court failed to see the import of the National Research Council's 2009 findings. *See* RE. 33-1: Gov. Br. in Support of Fingerprint Expert, Exhibit 1, PageID 110 n.10 (the judicial system must jettison use of methodologies that come to be discredited). The court reduced the Council's conclusions to "criticisms" and "suggestions for improvement" and stated that "nothing in the record suggests that the NRC report caused the forensic identification community to jettison fingerprint analysis." *Id.* at 110-11. That community, however, has a vested interest in perpetuating its industry.

The National Resource Council's committees that worked on the forensic-science review included the Committee on Identifying the Needs of the Forensic Science Community, the Committee on Science, Technology, and Law Policy and Global Affairs, and the Committee on Applied and Theoretical Statistics Division on Engineering and Physical Sciences. Members of these committees included judges, university leaders, law-school professors, professors of scientific disciplines like chemistry and physics, medical professionals, attorneys, writers, and forensic-science professionals. This collection of scholars and practitioners from various academic and practical fields sits in a more objective position to judge the reliability of fingerprint-analysis methodology than practitioners in the field who have a vested interest in the field. Scholars, scientists, and academics trained in scientific fields also sit in a better position to judge the reliability of methodologies purporting to be scientific in nature. This community deemed the ACE-V methodology flawed. And even if the friction ridge analysis industry is working to reform itself, *Daubert* demands more than reform efforts. *Cf. id.* at 111. Given the National Resource Council's discrediting of the ACE-V methods, fingerprint analysts must produce a methodology to replace ACE-V if they want to present evidence in court.

To look to cases that pre-date the National Research Council's findings in the 2009 report is to ignore a honing of knowledge. The Council has asked the criminal-justice community, and others, to recognize the flaws in certain "forensic-science" practices and to demand improvements. To ignore this call perpetuates a flawed system.

C. The government states that its expert used the undermined ACE-V methodology to conduct his analysis in this case.

The government states in its memorandum on the issue that its proffered expert used the ACE-V testing that the National Resource Council has found unreliable. *See* RE. 33: Gov. Br. in Support of Fingerprint Expert, PageID 87. In its memorandum, the government cites *United States v. Stone*, 848 F. Supp. 2d 714 (E.D. Mich. 2012), for support of its position in favor of admitting this material. *See* RE. 33: Gov. Br. in Support of Fingerprint Expert, PageID 85-86. The district court in that case rested her opinion, in part, on the lack of a specific attack on the methodology used. *See Stone*, 848 F. Supp. 2d at 717. Here, Mr. Smith does challenge the methodology: he challenges the unreliability of the ACE-V methods, unreliability discussed in the National Research Council report. Without a hearing and cross-examination of the government's proffered expert, Mr. Smith cannot offer a more precise attack on the methods in this case. He could offer further briefing following a *Daubert* hearing. His attack here, however, rests on specific findings by academics and objective researchers in the National Research Council Report. The *Stone* court's contention that fingerprint analysis has long enjoyed acceptance as admissible ignores the need for evolution in the area of admissibility when researchers reveal serious flaws in an area of specialized knowledge. *See id.* at 716-17.

An "aura of expertise and authority" can create a situation in which the trier of fact accepts testimony uncritically. *See, e.g.*, *United States v. Miner*, 774 F.3d 336, 349 (6th Cir. 2014). Time and research have revealed the flaws in fingerprint examination. Fingerprint analysis does not rest on reliable methods and fails the test for admissibility under *Daubert*. Outdated reasoning should not

support continued admissibility of practices now recognized as flawed and unreliable by objective researchers.

Conclusion

For these reasons, Mr. Smith asks the Court to deny the government's motion in limine and disallow presentation of fingerprint testimony and related evidence.

Date: June 5, 2017

SCOTT GRAHAM PLLC

By: /s/ Scott Graham
Scott Graham
Attorney for Defendant
Business Address:
1911 West Centre Avenue, Suite C
Portage, Michigan 49024
(269) 327.0585