**IN THE UNITED STATES DISTRICT COURT**
**FOR THE SOUTHERN DISTRICT OF OHIO**
**EASTERN DIVISION**

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| **UNITED STATES OF AMERICA,** | : | |
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| **Plaintiff,** | : | |
| | : | |
| **vs.** | : | |
| | : | **Case No. CR2-08-223(1)** |
| **ANTHONY D. ALLS,** | : | **JUDGE MARBLEY** |
| | : | |
| **Defendant.** | : | |

**OPINION & ORDER**

## I. INTRODUCTION

This matter is before the Court on Defendant Anthony D. Alls' Motion for a Hearing to Determine Questions of Admissibility (Dkt. 106). Mr. Alls' asserts that principles of Firearm and Toolmark Identification are not generally accepted by the scientific community, such that it should not be admitted. For the reasons stated below, this Court finds that while Firearm and Toolmark Identification is generally accepted as a field of forensic science, it is not generally accepted that an analyst experienced in Firearm and Toolmark Identification would be able to reach a definite conclusion as to the exclusive source of a bullet or casing, and therefore Heather McClellan's testimony is admissible only to the extent that she does not testify as to her opinion on exclusive source attribution. Accordingly, Defendant's Motion is **GRANTED** in part and **DENIED** in part.

## II. BACKGROUND

Mr. Alls' submitted his Motion for a Hearing to Determine Questions of Admissibility on

November 15, 2009. The Court held a Daubert Hearing on November 30, 2009 to address the issues raised in Mr. Alls' Motion. At the hearing, Heather McClellan, a Columbus Police Department criminalist, testified for the Government and was the sole witness.

## III. LAW AND ANALYSIS

### A. Legal Standard for Daubert Hearings

In *Daubert v. Merrell Dow Pharmecuticals, Inc.*, 509 U.S. 579 (1993), the Supreme Court set forth the following factors to determine if testimony of an expert is admissible: 1) whether the knowledge can be tested; 2) whether the technique has been subjected to peer review or publication; 3) the known or potential rate of error; and 4) whether the technique is generally accepted by the scientific community. *Id.* at 593-94. These factors are not necessarily determinative, and the ultimate decision likes with the district court to determine the reliability of expert testimony. *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 141-42 (1999). In *Kumho*, the Supreme Court held that Rule 702 is not limited only to scientific evidence, but also allows for technical or specialized evidence which does not meet the rigors of scientific analysis (such as fingerprinting). *Id.* at 141.

### B. Analysis of Firearm and Toolmark Identification Under Daubert

Mr. Alls argues that, given recent cases and reports, ballistics evidence is not scientifically accepted and fails under the *Daubert* standard. The Government counters that while there are recent cases that question the scientific reliability of Firearm and Toolmark Identification, there is a history in United States jurisprudence of accepting such testimony. Neither party has pointed to any cases, nor has this Court found any cases, in the Sixth Circuit or the Southern District of Ohio that have dealt with this issue, and therefore the Court turns to

other jurisdictions for guidance.

*1. Firearm and Toolmark Identification Testimony is Generally Admissible Under Daubert*

To date, no court has held Firearm and Toolmark Identification to be inadmissible under *Daubert*. Several courts have, however, questioned the reliability of the evidence given the subjectivity of the exclusive source attribution determination, and have limited the scope of what an expert may testify about.

In *United States v. Green*, 405 F. Supp. 2d 104, 123 (D. Mass. 2005), Judge Gertner in the District of Massachusetts, questioned the reliability of ballistics evidence. The Court explained that markings on a casing reflect class characteristics, which narrow identification to a given manufacturer; sub-class characteristics, which are markings that "temporarily become part of the manufacturing process, and therefore create a marking on perhaps hundreds of weapons in a given production run;" and individual characteristics and accidental characteristics that are unique to an individual piece.[1] The individual gun's markings, however, change over time, and marks present at one time may not be present during an earlier, or subsequent, firing. Finally, it can be difficult to differentiate between the different characteristics.[2] *Id.* at 111-12.[3] Given that courts generally accept ballistics evidence,the Court allowed the testimony, but limited the

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[1]This description of the markings on a casing is consistent with Ms. McClellan's testimony at the November 30, 2009 hearing.

[2] In William Tobin's affidavit, submitted by Mr. Alls, Mr. Tobin notes that it can be particularly difficult to distinguish between sub-class characteristics and individual characteristics, and that it is imperative to be able to make these distinctions. Tobin Affidavit, 21-22.

[3]It should also be noted that in *Green*, the witness was not certified and the lab was not accredited. *Green*, 405 F. Supp. 2d at 107-08.

testimony to the witnesses observations. The witness was not permitted to "conclude that the match he found by dint of the specific methodology he used permits the exclusion of all other guns as the source of the shell casings." *Id.* at 124.

In *United States v. Glynn*, No. 06-cr-580, at *5-6 (S.D.N.Y. Sept. 22, 2008), Judge Rakoff noted that in three cases judges have addressed ballistics identification testimony and have found that it "does not have sufficient rigor to be received as science." *See United States v. Diaz*, No. 05-167, 2007 U.S. Dist. LEXIS 13152, at *35-36 (N.D. Cal. Feb. 12, 2007) ("The record, however, does not support the conclusion that identifications can be made to the exclusion of all other firearms in the world."); *United States v. Monteiro*, 407 F. Supp. 2d 351, 355 (D. Mass. 2006) ("the process of deciding that a cartridge case was fired by a particular gun is...largely a subjective determination..."); *Green*, 405 F. Supp. 2d 104 (D. Mass. 2005). *Glynn* also noted that while courts have questioned the reliability of ballistics evidence, they have all found it to be "sufficiently reliable to warrant admission in some qualified form." *Id* at 6. In *Glynn*, the Court allowed the expert to testify only as to whether the casings were "more likely than not" from a particular firearm, but could not testify to a "reasonable degree of ballistic certainty." *Id.* at 15.

Finally, in *United States v. Mouzone*, No. WDQ-08-868, R&R (D. Md. 2008), the Court recommended that the Government's witness not be permitted to testify as to their opinion that no other firearm could have fired the cartridges at issue. In *Mouzone*, a professor of Criminology submitted an affidavit questioning the reliability of ballistics evidence, and stated that ballistics

definitions are often subjective. *Id.* at 4-10.[4] The Magistrate Judge's recommendation was that the witness "be permitted only to state his opinions and bases without any characterization as to degree of certainty...if Judge Quarles does not...impose this much of a restriction, then, alternatively, I recommend that Sgt. Ensor only be allowed to express his opinions "more likely than not," as in *Glynn...*" *Id.* at 43.

The Government cites to several cases to support its argument that ballistics testing is scientifically accepted by courts and meets the *Daubert* standards. *United States v. Hicks*, 389 F.3d 515, 526 (5th Cir. 2004) ("the matching of spent shell casings to the weapon that fired them has been a recognized method of ballistics testing in this circuit for decades"); *United States v. Foster*, 300 F. Supp. 2d 373, 376 n.1 (D. Md. 2004) ("Ballistics evidence has been accepted in criminal cases for many years"); *see also United States v. Williams*, 506 F.3d 151, 157-58 (2nd Cir. 2007) (given the exhaustive foundation of expertise of witness, separate *Daubert* hearing was not required). *Hicks* does not address the arguments and reports discussed in *Green*, *Glynn*, and *Mouzone*, and in fact states that the court had not "been pointed to a single case in this or any other circuit suggesting that the methodology employed by Beene [firearms expert] is unreliable." 389 F.3d 515 at 526. *Foster* does not engage in any analysis beyond a footnote, and *Williams* noted that its opinion should not "be taken as saying that any proffered ballistic expert should be routinely admitted." 506 F.3d at 161.

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[4] The finding that Firearm and Toolmark Identification is subjective appears to be uncontroverted. The Government's own witness, Heather McClellan, stated during her testimony that it is a subjective, and not an objective, inquiry. Ms. McClellan testified that the test for determining whether a casing is attributable to a single firearm is whether the markings from an identification sufficiently exceeds that which would be accepted in a known not match. Furthermore, all the of the affidavits and reports submitted by both the Defendant and the Government acknowledge the subjective nature of firearm comparisons.

Heather McClellan, the Columbus Police Department criminalist, conducted the analysis of the casings at issue in this case, and testified at the hearing on November 30, 2009. Ms. McClellan, however, was unable properly to assist the Court in its determination of whether ballistics evidence is scientifically reliable enough to be admitted as testimony under *Daubert*, due to the fact that her expertise is in laboratory work, not the Firearms and Toolmark Identification field as a whole. Accordingly, the Court bases its decision on the cases cited herein, as well as the additional documents submitted by the Defendant and the Government.[5] Given that no court has ever found Firearm and Toolmark Identification evidence to be inadmissible under *Daubert*, it is clear that firearm identification testimony meets the *Daubert* reliability standards and can be admitted as evidence. This finding does not, however, resolve the issues of subjectivity in determining whether a firearm is the exclusive source of a casing.

*2. The Scope Of Ms. McClellan's Testimony Must Be Limited*

The cases discussed above, *Glynn*, *Green*, and *Mouzone*, and the additional cases cited, *Diaz and Monteiro*, all call into question the ability of an expert to reach a conclusion that an identification can be made to the exclusion of all other firearms. During the hearing, Ms. McClellan testified that it is her opinion that she can determine that a particular bullet or casing was fired from a particular firearm to the exclusion of all others, and that she believed only one firearm could have been responsible for the casings that she analyzed in Mr. Alls' case. This

[5] The Defendant submitted affidavits by William Tobin (Dkt. 138) , Dr. John E. Rolph (Dkt. 106, Ex. 1)), and Dr. Clifford Spiegelman (Dkt. 141, Ex. 1), and an Executive Summary by the National Research Council-Ballistic Imaging (Dkt. 139, Ex. 1). The Government submitted an affidavit by Stephen Bunch (Dkt. 142, Ex. 1), and the same Dr. Rolph affidavit submitted by Mr. Alls (Dkt. 142, Ex. 2). Dr. Tobin's affidavit was the only affidavit created for the purpose of this case, the remaining affidavits were included from briefings in other courts.

conclusion is contrary not only to the above cited cases, but to Dr. Rolph's affidavit, submitted by both the Defendant and the Government, which states that:

> firearms examiners tend to cast their assessments in bold absolutes, commonly asserting that a match can be made to the exclusion of all other firearms in the world. The Committee [writing the Ballistic Imaging Report from the National Academy of Scientists] cautioned that such comments cloak an inherently subjective assessment of a match with an extreme probability statement that has no firm grounding and unrealistically implies an error rate of zero.

Dr. Rolph Affidavit, Page 2 at ¶9 (internal citations omitted). Accordingly, this Court follows the approach taken by *Glynn, Monteiro, Green, Diaz,* and *Mouzone*, and places a limitation on Ms. McClellan's testimony. Although Ms. McClellan may testify as to her methodology, case work, and observations in regards to the casing comparison she performed for this case, she may not testify as to her opinion on whether the casings are attributable to a single firearm to the exclusion of all other firearms. Such testimony would be misleading and prejudicial given the inherent subjectivity in Firearm and Toolmark Identification.

## IV. CONCLUSION

Accordingly, the Defendant's Motion is **GRANTED** in part and **DENIED** in part. Ms. McClellan may testify as an opinion witness, but may not testify as to her conclusion that the firearm identification can be made to the exclusion of all other known firearms.

**IT IS SO ORDERED.**

**s/Algenon L. Marbley**
**ALGENON L. MARBLEY**
**UNITED STATES DISTRICT COURT**

**Dated: December 7, 2009**