Lance G. Lundvall
LUNDVALL LAW OFFICE
GW Building
2722 3RD Avenue North, Ste. 400
Billings, Montana 59101
Telephone: (406) 294-0515
Fax: (406) 248-4770

LISA J. BAZANT
Attorney at Law
GW Building
2722 3RD Avenue North, Ste. 400
P.O. Box 1832
Billings, MT 59101
Telephone: (406) 696-2197
Fax: (406)248-4770

Attorneys for Defendant

MONTANA THIRTEENTH JUDICIAL DISTRICT COURT,
YELLOWSTONE COUNTY

STATE OF MONTANA, Plaintiff, vs. PATRICK O. NEISS, Defendant.	Cause No. DC 14-627 JUDGE: Gregory R. Todd **MOTION *IN LIMINE* WITH BRIEF IN SUPPORT - EXPERT TESTIMONY**

COMES NOW, the Defendant, PATRICK O. NEISS, by and through his attorneys of record, Lance G. Lundvall and Lisa J. Bazant and hereby moves this Court in limine to exclude and/or limit the following testimony. It is anticipated that during the trial in this matter, the State may attempt to introduce expert testimony on the following topics:

1. Toolmark or ballistics comparisons
2. Shoe print testimony or comparisons

It is the Defendant's position that any proposed testimony on these topics as disclosed to the defense during discovery does not qualify as a proper subject for expert testimony under Montana Rule of Evidence 702 - as it is unreliable and/or it will not assist the trier of fact to understand the evidence or to determine a fact in issue. Further, testimony on these topics is not relevant, or to the extent that it is, the probative value of the testimony is substantially outweighed by the risk of unfair prejudice, confusion, or undue consumption of time. See, e.g., Mont. R. Evid. 403. Finally, the Defendant asserts that admitting testimony on these topics would be in violation of his right to due process guaranteed by the Fourteenth Amendment to the United States Constitution and Article 11, Section 10 of the Montana Constitution as the evidence upon which the testimony is based is unreliable and its admission would deprive the Defendant of his right to a fair trial.

BRIEF IN SUPPORT

Montana Rule of Evidence 702 provides as follows:

> 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.

In order to testify as an expert witness, the witness must have specialized knowledge that would distinguish him from a lay person. *State v. Stout*, 2010 MT 137 ¶ 59, 237 P.3d 37, 356. A district court has great latitude in ruling on the admissibility of expert testimony, and the ruling will not be disturbed without a showing of abuse of discretion. *State v. Crawford*, 2003 MT 118, ¶ 30, 315 Mont. 480, 68 P.3d 848; but see *State v. Maier*, 1999 MT 51, ¶ 89, 293 Mont. 403, 426, 977 P.2d 298, 313(district court abused its discretion in allowing officer to testify as expert because officer had no specialized knowledge that would distinguish him from a lay person in opining whether the ejection pattern of shell casings was consistent with shots having been fired from a van.)

Scientific evidence is admissible "only if it is both relevant and reliable." *Kumho Tire Co. v. Carmichael* (1999), 526 U.S. 137, 141 (citing *Daubert v. Merrell Dow Pharmaceuticals, Inc.*

(1993), 509 U.S. 579). Rule 702 further requires that the evidence or testimony "assist the trier of fact to understand the evidence or to determine a fact in issue." Mont. R. Evid. 702. As *Daubert* explains, this "condition goes primarily to relevance. 'Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.'" *Daubert*, 509 U.S. at 591(internal citation omitted).

The Supreme Court has suggested several factors that can be used to determine the reliability of expert testimony: "1) whether a theory or technique can be tested; 2) whether it has been subjected to peer review and publication; 3) the known or potential error rate of the theory or technique; and 4) whether the theory or technique enjoys general acceptance within the relevant scientific community." *United States v. Hankey*, 203 F.3d 1160, 1167 (9th Cir. 2000) (citing *Daubert*, 509 U.S. at 592-94).

A trial court's gate-keeping obligation is not limited to scientific testimony, but applies to all expert testimony. *Kumho*, 119 S. Ct. at 1174. A trial court has the duty to exclude junk science that does not meet reliability standards and cannot abdicate that role to the jury. See e.g., *Estate of Barabin*, 740 F.3d 457, 463(9th Cir. 2014)("The duty falls squarely upon the district court to "act as a 'gatekeeper' to exclude junk science that does not meet Federal Rule of Evidence 702's reliability standards." Id., citing to *Ellis v. Costco Wholesale Corp.*, 657 F.3d 970, 982 (9th Cir. 2011).

In addition to evaluating whether evidence is admissible under Rule 702, trial judges must also make a determination as to whether the probative value of an expert's testimony is substantially outweighed by the risk of unfair prejudice, confusion, or undue consumption of time. See, e.g., Mont. R. Evid. 403. In other words, "the expert's methods must be evaluated, not only for [a Court's] gatekeeping role, but also to understand the impact of the evidence on the jury's job as the factfinder." *United States v. Green*, 405 F.Supp.2d 104, 119 (D. Mass., 2005). Expert testimony may be assigned "talismanic significance" in the eyes of lay jurors, and therefore, courts must take care to weigh the value of such evidence against its potential to mislead or confuse. *United States v. Frazier*, 387 F.3d 1244, 1263 (11th Cir. 2004). See also

United States v. Hines, 55 F.Supp.2d 62, 64 (D. Mass. 1999) ("a certain patina attaches to an expert's testimony unlike any other witness; this is 'science,' a professional's judgment, the jury may think, and give more credence to the testimony than it may deserve.") Special care must be taken to avoid misleading a jury with scientific testimony that does not truly qualify as "science."

Because reliability under Daubert is among the preliminary inquiries a court must address under [Mont.] R. Evid. 104(a), the burden of proof with respect to reliability remains on the proponent of the evidence. See *Daubert*, 509 U.S. at 593 n.10 ("The proponent need not prove to the judge that the expert's testimony is correct, but she must prove by a preponderance of the evidence that the testimony is reliable.").

There is little dispute that unreliable forensic science techniques have led to the convictions of a disturbing number of innocent persons. See Garrett & Neufeld, Invalid Forensic Science Testimony and Wrongful Convictions (2009), 95 Va. L. Rev. 1. See also Innocence Project Factsheet: Wrongful Convictions Involving Unvalidated or Improper Forensic Science that Were Later Overturned through DNA Testing available at: http://www.innocenceproject.org/causes-wrongful-conviction/DNA_Exonerations_Forensic_Science.pdf (last visited August 16, 2015) (hereinafter "Project Factsheet" (explaining that invalidated or improper forensic sciences played a role in half of the convictions later proved wrongful through DNA testing). In recent years, the scientific community and state and federal courts have increasingly recognized that flawed forensic science is seriously impacting the integrity of our criminal system. See e.g., *Melendez Diaz v. Massachusetts,* 557 U.S. 305, 319 (2009)(cautioning that "[s]erious deficiencies have been found in the forensic evidence used in criminal trials"); National Research Counsil of the National Academies (2009), Strengthening Forensic Science in the United States: A Path Forward (hereinafter "NAS Report"). See also Justice Nelson, concurring opinion, *State v. Clifford*, 121 P.3d 489, 503 n.4(2005) "there are numerous examples [of forensic fraud] in the literature.") (Nelson, J., concurring) (referring to Fred Zain, Ralph Erdman, and Arnold Melnikoff)..

What is particularly troubling about forensic science is the reality that it is not unusual for

forensic disciplines once considered reliable (such that evidence based thereon was introduced at criminal trials) to be partially or wholly discredited after more rigorous scientific evaluation is conducted. In recent years, empirical studies and select trial courts have called into question the legitimacy of evidentiary stalwarts like handwriting, voice exemplars, hair and fiber, bite and tool marks, and even fingerprints. See Murphy, The New Forensics: Criminal Justice, False Certainty, and the Second Generation of Scientific Evidence, 95 Cal. L. Rev 721, 724.

One example of how unreliable science contributed to the conviction of an innocent person is the case involving Edward Honaker. See Innocence Project: Profiles Edward Honaker," http://www.innocenceproject.org (last visited August 16, 2015.) Honaker was convicted of rape and sexual assault based in part upon the testimony of a forensic examiner who claimed that a hair found on the victim was "consistent" with Honaker's hair, and that the possibility that the hair could be someone else's was "possible" but "unlikley." In fact, there never has been adequate empirical data about the frequency of various class characterizations in human hair to determine whether consistency is a rare or common event. Id. DNA evidence tested ten years after Honaker's conviction established his innocence (and led to his pardon) exposing the unreliability of the hair microscopy evidence used to convict him. See Id.

The science underlying shoe print comparisons has also been revealed to be unreliable. See Garrett & Neufeld, 95 Va. L. Rev. at 71-72. For example, in the case of Charles Fain from Idaho, he was convicted, in part, on the basis of expert testimony that the wear patterns on the sole of a person's shoe are "individualized" to a person's gait. The expert testified that the gait creates correspondingly unique shoe prints. No scientific evidence supported the opinion that the effect of a gait on the sole of a shoe is unique. Id. at 72. At trial, an analyst connected footprints found at the crime scene to shoes belonging to Fain, saying, "I found, therefore, that the shoe which made this impression, and this left shoe had sustained wear in the same area. To a -- a shoe print examiner, this would indicate that the individual who walked with these shoes has the same walking gait." Fain was eventually exonerated by DNA testing conducted after his conviction. See Id.

The DNA exonerations have shown that faulty forensic-science testimony may be due to either (1) insufficiently reliable forensic-science disciplines, such as toolmark and firearm evidence, bullet-lead analysis, analysis of hair or fibers, analysis of paint or explosives evidence, forensic odontology, and bloodstain analysis; or (2) insufficiently reliable expert testimony about an otherwise reliable forensic-science discipline.

The Montana Supreme Court has held the admission of scientific evidence is governed by Mont. Rule Evd. 702, and if the expert field is reliable and the expert is qualified, the trial court should allow the expert to testify as to the application of the "science," leaving the testing of the reliability of the application of the "science" to "vigorous cross-examination," "presentation of contrary evidence" and careful instruction to the jury on the burden of proof. *State v. Clifford*, 2005 at ¶ 28. Under current Montana Supreme Court precedent, a *Daubert* hearing and application of the factors enunciated there for admission of scientific evidence is required only when the "science" in question is found to be "novel." See, e.g., *State v. Ayers*, 2003 MT 114, P37, 315 Mont. 395, 68 P.3d 768, 776.

This interpretation of Rule 702 is not consistent with the text of this rule nor is it sufficient to protect a defendant's right to Due Process guaranteed by the Fourteenth Amendment. The Due Process Clause has a role in excluding unreliable evidence from criminal jury trials. See, e.g., *Foster v. California*, 394 U.S. 440, 443 (1968)(applying due process to exclude unreliable eye witness identification.); see also Judicial Gatekeeping of Suspect Evidence: Due Process and Evidentiary Rules in the Age of Innocence, 47 Georgia Law Review 723 (2013).

Firearms or Tool Mark Examination or Comparison.

In the present case, it is expected that the State will attempt to present expert testimony that shell casings located at the crime scene "were fired by the same firearm" as shell casings recovered pursuant to a search warrant of the property located at 7200 Central, the property where the Defendant resided. See e.g., CL 207. The Defendant objects to the admission of this testimony on several grounds.

At the outset, it is important to point out that evidence related to firearm and toolmark

identification is no longer automatically admissible. See e.g., *United States v. Monteiro*, 407 F.Supp.2d 351 (D. Mass. 2006) (requiring the Government to prove that its firearms expert adhered to the appropriate protocols), *United States v. Green*, 405 F.Supp.2d 104 (D. Mass., 2005) (prohibiting the Government's expert from offering individualizing testimony), *Sexton v. State*, 93 S.W.3d 96 (Tex. Crim. App. 2002)(rejecting matching of cartridge cases based on magazine marks alone without recovery of underlying magazine). As noted by the court in *Monteiro*, 407 F.Supp.2d at 365, "Storm clouds... are gathering" over toolmark and firearms identifications because they are based primarily on a visual inspection of patterns of toolmarks, and is largely a subjective determination based on experience and expertise."

The subjective nature of a toolmark or firearm examiners opinion renders it suspect. So too, does the fact that to a large degree, there is no empirical testing of the fundamental basis behind the testimony, which is then passed off as "science." As cogently explained by Judge Gertner in her lengthy opinion in *United States v. Green*:

> While this is not traditional science, it does not mean it is without scientific pretension: It is empirical, based on observations of physical objects. It makes assumptions about the physical world: 1) that each gun--like individual DNA--is unique, because it is made by a metal tool that changes over time; 2) the use of the gun by the consumer causes it to wear in a unique way; 3) the gun's unique signature will be transferred to the projectiles that emerge from it, imprinted on them through the firing pin; 4) an expert can identify that unique signature by visual comparison.
>
> 405 F. Supp. 2d at 118-119.

Firearm identification testimony is also inherently suspect because when comparing a particular bullet or casing against another bullet or casing, only one bullet is compared (i.e., single sample testing). Single-sample forensic testing is equivalent to a "show-up" in eyewitness identifications. Again, as noted by Judge Gernter in her opinion in *Green*:

> The only weapon [the Government's expert] was shown was the suspect one; the only inquiry was whether the shell casings found earlier matched it. It was, in effect, an evidentiary "show-up," not what scientists would regard as a "blind" test. He was not asked to try to match the casings to the other test-fired Hi Point weapons in police custody, or any other gun for that matter, an examination more equivalent to an evidentiary "line-up." His work was reviewed by another officer, who did the same thing—checked his conclusions under the same conditions—another evidentiary "show- up."... In effect, the examination was an

> evidence show up (do these casings come from this gun?), not an evidence line-up (from which gun do these casings come?).
>
> 405 F.Supp.2d at 107-108.

According to the NRC Forensic Science Report referenced above (other than nuclear DNA analysis) "'no forensic method has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source." Id. at 8. This is true as to toolmark evidence. The NRC Forensic Science Report pointed out that toolmark identification tests "have never been exposed to stringent scientific scrutiny." Id. at 42. The Report noted that it is "challenging" for an examiner to determine "the extent of agreement in marks made by different tools, and the extent of variation in marks made by the same tool." Id. at 153. Moreover, it said that "these decisions involve subjective qualitative judgments by examiners," and "the accuracy of examiners' assessments is highly dependent on their skill and training," gained through "past casework" and/or "extensive training programs using known samples." Id. It emphasized that "the final determination of a match is always done through direct physical comparison of the evidence by a firearms examiner, not the computer analysis of images," and the examiner makes "a subjective decision based on unarticulated standards and no statistical foundation for estimation of error rates." Id. at 153-54.

With regard to toolmark evidence, the NRC Forensic Science Report concluded:

> Because not enough is known about the variabilities among individual tools and guns, we are not able to specify how many points of similarity are necessary for a given level of confidence in the result. Sufficient studies have not been done to understand the reliability and repeatability of the methods. The committee agrees that class characteristics are helpful in narrowing the pool of tools that may have left a distinctive mark. Individual patterns from manufacture or from wear might, in some cases, be distinctive enough to suggest one particular source, but additional studies should be performed to make the process of individualization more precise and repeatable.

Id., See also See Adina Schwartz, *A Systemic Challenge to the Reliability and Admissibility of Firearms and Toolmark Identification*, 6 Colum. Sci. & Tech. L. Rev. 2, 33 (2005).

Several recent federal court decisions have addressed the scientific status of ballistics

identification testimony, and all cited below have concluded that, in one respect or another, this testimony does not have sufficient rigor to be received as science. See e.g., *United States v. Monteiro*, 407 F. Supp. 2d at 355; (Saris, J.) (finding that while the underlying principles behind firearm identification may be scientifically valid, "there is no reliable . . . scientific methodology which will currently permit the expert to testify that [a casing and a particular firearm are] a 'match' to an absolute certainty, or to an arbitrary degree of statistical certainty."); *Green,* 405 F. Supp. 2d at 120-22 (discussing ways in which ballistics evidence fails to meet Daubert criteria regarding, inter alia, testability, reliability, and error rates); *United States v. Diaz*, No. 05-167, 2007 U.S. Dist. LEXIS 13152, at *35-36 (N.D. Cal. Feb. 12, 2007) (Alsup, J.) (referring to *Monteiro*'s conclusion that no scientific methodology exists to support a finding of a match to an absolute certainty, but permitting testimony "to a reasonable degree of ballistic certainty").

Neiss moves this Court to exclude any firearm identification, tool mark or comparison testimony under Montana Rules of Evidence 702, Rule 403 and based upon his right to Due Process. This testimony is unreliable for the reasons as set forth above. Presented in the form of expert testimony, it is particularly prejudicial to the Defendant. There has been insufficient empirical data about the frequency of various tool markings to determine whether consistency is a rare or common event. Without this additional information, any conclusion that the shell casing "match" is unsupported.

In the alternative, Neiss moves this Court to limit the testimony to exclude the examiner from saying there was a "match" or that the casings were fired from the same firearm. [1] In *United States v. Green*, the trial court admitted expert testimony but refused to allow the expert to

---

[1] A recent review confirmed that FBI experts systematically testified to the near-certainty of "matches" of crime-scene hairs to defendants, backing their claims by citing incomplete or misleading statistics drawn from their case work. In reality, there is no accepted research on how often hair from different people may appear the same. http://www.washingtonpost.com/local/crime/fbi-overstated-forensic-hair-matches-in-nearly-all-criminal-trials-for-decades/2015/04/18/39c8d8c6-e515-11e4-b510-962fcfabc310_story.html (last accessed 8/19/2015).

conclude that the shell casings came from a specific pistol to the exclusion of every other firearm: "That conclusion--that there is a definitive match--stretches well beyond [the expert's] data and methodology." The same is true of the proposed testimony in the present case.

2. Footprint testimony or Shoe Print Impression Analysis

The Defendant moves to prohibit the State from attempting to draw any connection between the footprints present at the scene of the homicide and the defendant absent the State providing an adequate foundation actually linking the Defendant to those footprints. *State v. Storm*, 125 Mont 346, 238 P2d 1161 (1951)(overruled on other grounds) is a case on point. *Storm* was a homicide prosecution where at issue was the admission of foot print evidence. At trial, the State submitted evidence of footprints or tracks found near the house where the deceased was shot. No testimony was produced showing or tending to show that the footprints were made by the defendant. The prints were not shown to correspond in any way with shoes worn by him. The only fact which tended to connect the prints in any manner with the defendant was that they led in the direction of his home. The prosecution had not found any shoes, overshoes, or other footwear belonging to the defendant that corresponded with any of the tracks.

At his trial, Storm objected to the introduction of any testimony related to the tracks due to a lack of foundation. His objections were overruled and at the close of the State's case, he made an additional motion to strike this evidence. The district court denied Storm's motion and he was convicted of the homicide.

On appeal, the Montana Supreme Court concluded that the evidence should have been excluded and reversed Storm's conviction. The Court found that there was no evidence that connected or identified the defendant with any of the footprints. There was no testimony produced showing or tending to show that the footprints were made by him. The footprints were not shown that they corresponded in any way with the shoes worn by him. The fact that the prints led in the direction of his home was insufficient to connect them to him. Admission of the evidence was erroneous and prejudicial to the defendant's rights. As explained by the Court:

> The objections should have been sustained and the motions granted, for here again

> there was no evidence that connects or even tends to connect or identify defendant with any of the plaster casts so received in evidence. To render it admissible and proper the evidence must at least tend to connect the defendant with the tracks or footprints from which the casts were made. In short the proof must show 'that he left such evidence behind him.' A defendant on trial for murder may not be convicted on conjectures, however shrewd, on suspicions, however justified, on probabilities, however strong, but only upon evidence which establishes guilt beyond a reasonable doubt.
>
> *Storm*, 125 Mont. at 359, 238 P.2d at 1951.

In the present case, the State has also presented the defense with a report CL177 in which the report says:

> The approximate shoe size for the castings submitted (item 047) is 10.5; however, this does not preclude an individual from wearing shoes that are significantly larger or smaller than the size indicated. Also, shoe sizes can change based on the type of shoe purchased.

The Defendant asks that all evidence related to footprint evidence be excluded at his trial. As in *Storm*, there were no shoes recovered from the Defendant, nor any "similar" footprints found at 7200 Central Avenue to tie the Defendant to the shoe prints found at the Greene residence or the massive field that separates the Greene residence from 7200 Central Avenue.

The State cannot properly connect any of the footprint evidence with the Defendant and so therefore this evidence is not relevant. Its admission would be in violation of his right to a fair trial. Even if relevant, this evidence is more prejudicial than probative and it must be excluded.

The testimony as set forth in the Report above should be excluded as it is not helpful to the trier of fact.

RESPECTFULLY SUBMITTED this 24th day of August, 2015.

LUNDVALL LAW OFFICE

By: _____
Lance Lundvall
Attorney for Defendant

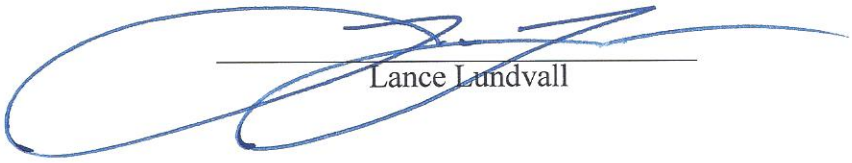
CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that a true and correct copy of the foregoing was duly served upon the person indicated at the address set forth below:

County Attorney's Office
217 North 27th Street
P.O. Box 35025
Billings, MT 59107-5025

BY: ____ Mail, postage pre-paid
____ Fax
____ FedEx/UPS/_____
___ Hand delivery
__x__ Other: email

DATED this 24th day of August, 2015.



Lance Lundvall