

STATE OF MAINE
KENNEBEC, ss.

UNIFIED CRIMINAL DOCKET
AUGUSTA
DOCKET NO. CD-CR-15-167

STATE OF MAINE

v.

**ORDER ON DEFENDANT'S
MOTION *IN LIMINE***

ARNOLD SMITH JR.,
Defendant

A hearing was conducted on February 3, 2017 with respect to the Defendant's Motion *In Limine* filed 4/6/16 to exclude certain expert testimony of the State's expert Christine Waterhouse (hereinafter "CW") with regard to certain analysis conducted by CW on grounds that "the methodology employed (by CW) is not scientifically reliable...", see aforementioned Motion for more details. After conducting the hearing the Court gave counsel until 2/27/17 to submit post-hearing memoranda. Counsel then requested an extension of time to submit memoranda, and the Court agreed to reset the deadline for 5/26/17. Unfortunately both counsel ultimately decided not to submit any memoranda and did not notify the Court of their decision until approximately three weeks ago, hence the five month delay between hearing and this Order.

In any event, after the Court has had the opportunity to review its notes taken during the hearing, the transcript of the hearing, and the exhibits admitted into evidence along with pertinent case law, the Court makes the following Findings of Fact and Conclusions of Law upon which the **Order** set forth below is based:

1. The Defendant is charged with Aggravated Criminal Trespass, Class C, and Unlawful Sexual Contact, Class C, the offenses allegedly occurring on or about 4/18/15 in Vassalboro, Maine.
2. At this hearing State called only one witness, CW, who testified that she has been a forensic DNA analyst at the Maine State Police Crime Office for nearly 10 years. The defense agreed CW is an expert in DNA analysis.
3. CW was provided with a "known sample" of the complainant's DNA and came up with a DNA profile. CW also was provided with a known sample

of the Defendant's DNA and came up with a DNA profile for him as well. (Hearing Transcript at 11, hereinafter "T").

4. CW was also provided with a known sample of the complainant's boyfriend's DNA and subsequently came up with a DNA profile for him as well. (T at 13).

5. Additionally there was a "swab sample" taken from scratches on the complainant's back that was subsequently analyzed to search for DNA evidence. This swab sample was referred to as "Sample 3Q.A" at the hearing. (T at 11).

6. CW opined that Sample 3Q.A contained DNA from more than one individual. (T at 16).

7. CW conducted an analysis to determine whether there was present in Sample 3Q.A evidence of DNA from the individuals mentioned above, or as CW testified "(T)hat's how I picture it, is evaluation of the forensic unknown sample and then comparison to your known samples to determine whether or not somebody might be included or excluded as potential donor to that mixture of samples..." (T at 32).

8. CW also opined that Sample 3Q.A is consistent with being from three individuals, but she could not say that the sample might not be from more than three people. (T at 32, 50).

9. As the undersigned understands it, the thrust of the defense motion is to suggest that the Combined Probability of Inclusion ("CPI") method to analyze samples of complex DNA mixtures¹ is not foundationally valid (T at 110) and whose value is questionable at best. Instead, analyzing such mixtures should go forward with the "probabilistic genotyping software" recommended by the defense expert, Professor Keith Inman of Cal State (East Bay). At a minimum, the defense contends that such software is the "superior method" to calculate a complex DNA mixture. (T at 53). CW argued that analyzing a DNA mixture by using CPI versus using the software espoused by defense counsel is asking a different question with a different answer. (T at 60). CW also opined that the Defendant should be considered as a "potential donor" to the mixture of DNA profiles obtained from the swab samples taken from the back of the complainant. (T at 76).

11. The Defendant's expert Professor Inman opined that the State's methodology of analyzing Sample 3Q.A resulted in the State being "incapable" of providing "a valid weight to any sort of inclusion" (T at 93), and that it was not reliable "for this profile." (T at 108). Professor Inman, however, acknowledged notwithstanding his dim view of the utility of CPI that "there are lots of crime lab people who would say that CPI is valid." (T at 117). Moreover, although CPI is not used in Europe, it is the most commonly used method in the

¹ The term "complex DNA mixtures" was defined at hearing as referring to a sample that has potentially more than two donors or has signs of being degraded or inhibited.

Americas, Asia, Africa, and the Middle East to assign the weight of evidence where a probative profile is obtained from an evidentiary sample.² (T at 127). However, Professor Inman was firm in his opinion, shared by various peer-reviewed literature, that the CPI is not an appropriate statistic to use when expressing the significance of including an individual as a possible contributor to a complex DNA sample. Defendant's Exhibit 2 at page 4.

12. Expert testimony must "meet a threshold level of reliability" and must (1) be relevant in accordance with M.R. Evid. 401, and (2) assist the trier of fact in understanding the evidence or determining a fact in issue. *State v. Maine*, 2017 ME 25, ¶ 17.

13. Indicia of reliability include: 1) whether any studies tendered in support of the testimony are based on facts similar to those at issue; (2) whether the hypothesis of the testimony has been subject to peer review; (3) whether an expert's conclusion has been tailored to the facts of the case; (4) whether any other experts attest to the reliability of the testimony; (5) the nature of the expert's qualifications; and (6) if a causal relationship is asserted, whether there is a scientific basis for determining that such a relationship exists. *Id.*

14. The defense in its motion blithely asserts that the use of CPI is a procedure that "is not reliable. CPI is no longer accepted by the scientific community as capable of producing reliable interpretation of complex mixtures. CPI has been debunked in the scientific literature as the appropriate way to interpret complex mixtures, and no current peer-review literature exists to support using CPI on complex mixtures. In short, CPI is an outdated technique for interpreting complex mixtures that has been abandoned by the general scientific community in favor of probalistic genotyping software ("PGS")..."

15. Such an expansively dim view of the use of the CPI method was not supported by the evidence presented at the hearing. The undersigned invited defense counsel to submit legal precedent for the proposition that use of the CPI method was so unreliable to the extent that such evidence was ruled inadmissible: none was proffered. Nor was a list of states that have abandoned the process.³

16. The admission of expert testimony is governed by M.R. Evid. 702, which provides:

"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

² As the undersigned understands it, the CPI refers to the proportion of a given population that would be expected to be included as a potential contributor to an observed DNA mixture. Is CPI a reliable?

³ Defense counsel stated at the end of this hearing "There are states that have abandoned the process. So I could probably come up with a list...of areas, states, countries, departments that maybe have abandoned the process. So I don't know if I could find cases."

qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise."

17. The proponent of expert testimony must satisfy two requirements: first, the testimony must be relevant pursuant to M.R. Evid. 401, and second, the testimony must assist the jury in understanding the evidence or determining the existence of a fact in issue. *State v. Fleming*, 1997 ME 158, P14, 698 A.2d 503, 507; *State v. Williams*, 388 A.2d 500, 504 (Me. 1978).

18. To meet the two-part standard for the admission of expert testimony, the testimony must also meet a threshold level of reliability. *Id.*; *State v. Irving*, 2003 ME 31, P12, 818 A.2d 204, 208. Although "general scientific acceptance" is not required to reach that threshold, *State v. Boutilier*, 426 A.2d 876, 879 (Me. 1981); *Williams*, 388 A.2d at 503, it is often the case that "the easiest way this burden can be met is to show the acceptance of the theory, method, etc. by the expert community to which it relates," Field & Murray, *Maine Evidence* § 702.4 at 361 (2000 ed. 1999).

19. The overall theory and techniques of DNA profiling have been found in Maine for almost 20 years to be scientifically reliable if conducted in accordance with appropriate laboratory standards and controls. Although clearly the field of DNA testing with respect to "complex mixtures" is evolving, the undersigned finds the CW's testimony is relevant, that it will assist the jury in understanding the evidence and/or determining the existence of a fact in issue. The undersigned also finds that the proffered expert testimony has been shown on this record to have sufficient reliability so that defense counsel's arguments go more appropriately to the weight to be given the evidence by a jury rather than its admissibility. Accordingly, the undersigned rules that on this record the Defendant's Motion *In Limine* To Exclude Certain Expert Testimony of Forensic DNA Analyst Christine Waterhouse is **denied**.

Date: July 5, 2017

BY 
Robert E. Mullen, Deputy Chief Justice
Maine Superior Court

STATE OF MAINE
vs
ARNOLD SMITH, JR
494B OLD BELGRADE ROAD
AUGUSTA ME 04330

CRIMINAL DOCKET
KENNEBEC, ss.
Docket No KENCDCR-2015-00167

DOCKET RECORD

DOB: 02/12/1962

Attorney: RONALD BOURGET
LAW OFFICES OF RONALD W BOURGET
185 STATE ST
AUGUSTA ME 04330-6407
APPOINTED 07/22/2015

State's Attorney: MAEGHAN MALONEY

Charge (s)

1 AGGRAVATED CRIMINAL TRESPASS 04/18/2015 VASSALBORO
Seq 7908 17-A 402-A(1) (A) Class C
BRYANT / MSP

2 UNLAWFUL SEXUAL CONTACT 04/18/2015 VASSALBORO
Seq 8397 17-A 255-A(1) (B) Class C
BRYANT / MSP

Docket Events:

04/23/2015 FILING DOCUMENT - CASH BAIL BOND FILED ON 04/22/2015

04/23/2015 Charge(s): 1,2

HEARING - INITIAL APPEARANCE SCHEDULED FOR 06/08/2015 at 08:30 a.m. in Room No. 1

NOTICE TO PARTIES/COUNSEL

04/23/2015 BAIL BOND - \$10,000.00 CASH BAIL BOND FILED ON 04/22/2015

Bail Receipt Type: CR

Bail Amt: \$10,000

Receipt Type: CK

Date Bailed: 04/20/2015

Prvdr Name: PAULINE SMITH

Rtrn Name: PAULINE SMITH

06/08/2015 Charge(s): 1,2

SUPPLEMENTAL FILING - COMPLAINT FILED ON 06/08/2015

06/08/2015 Charge(s): 1,2

MOTION - MOTION FOR APPOINTMENT OF CNSL FILED BY DEFENDANT ON 06/08/2015

06/15/2015 Charge(s): 1,2

HEARING - INITIAL APPEARANCE HELD ON 06/08/2015

ROBERT E MULLEN , JUSTICE

Defendant Present in Court

06/15/2015 Charge(s): 1,2

PLEA - NO ANSWER ENTERED BY DEFENDANT ON 06/08/2015

06/15/2015 Charge(s): 1,2

HEARING - DISPOSITIONAL CONFERENCE SCHEDULED FOR 08/13/2015 at 08:30 a.m. in Room No. 1

06/17/2015 Charge(s): 1,2
MOTION - MOTION FOR APPOINTMENT OF CNSL GRANTED ON 06/16/2015
ERIC WALKER , JUDGE
COPY TO PARTIES/COUNSEL

06/17/2015 Party(s): ARNOLD SMITH JR
ATTORNEY - APPOINTED ORDERED ON 06/16/2015

Attorney: BRENDAN O'KEEFE

06/17/2015 Charge(s): 1,2
HEARING - DISPOSITIONAL CONFERENCE NOTICE SENT ON 07/23/2015

07/22/2015 MOTION - MOTION FOR WITHDRAWAL OF CNSL FILED BY COUNSEL ON 07/22/2015

07/23/2015 Party(s): ARNOLD SMITH JR
ATTORNEY - WITHDRAWN ORDERED ON 07/23/2015

Attorney: BRENDAN O'KEEFE

07/23/2015 MOTION - MOTION FOR WITHDRAWAL OF CNSL GRANTED ON 07/22/2015
ERIC WALKER , JUDGE
COPY TO PARTIES/COUNSEL

07/23/2015 Charge(s): 1,2
MOTION - MOTION FOR APPOINTMENT OF CNSL FILED BY DEFENDANT ON 07/22/2015

07/23/2015 Charge(s): 1,2
MOTION - MOTION FOR APPOINTMENT OF CNSL GRANTED ON 07/22/2015
ERIC WALKER , JUDGE
COPY TO PARTIES/COUNSEL

07/23/2015 Party(s): ARNOLD SMITH JR
ATTORNEY - APPOINTED ORDERED ON 07/22/2015

Attorney: RONALD BOURGET

07/29/2015 Charge(s): 1,2
SUPPLEMENTAL FILING - INDICTMENT FILED ON 07/24/2015

07/29/2015 Charge(s): 1,2
HEARING - DISPOSITIONAL CONFERENCE NOT HELD ON 07/29/2015

07/29/2015 Charge(s): 1,2
HEARING - ARRAIGNMENT SCHEDULED FOR 08/13/2015 at 08:30 a.m. in Room No. 1

07/29/2015 Charge(s): 1,2
HEARING - ARRAIGNMENT NOTICE SENT ON 07/29/2015

08/13/2015 Charge(s): 1,2
HEARING - ARRAIGNMENT HELD ON 08/13/2015
WILLIAM STOKES , JUSTICE
DEFENDANT INFORMED OF CHARGES.

08/13/2015 Charge(s): 1,2
PLEA - NOT GUILTY ENTERED BY DEFENDANT ON 08/13/2015

08/13/2015 HEARING - DISPOSITIONAL CONFERENCE SCHEDULED FOR 10/08/2015 at 08:30 a.m. in Room No. 1

08/13/2015 HEARING - DISPOSITIONAL CONFERENCE NOTICE SENT ON 08/13/2015
CR_200

10/14/2015 HEARING - DISPOSITIONAL CONFERENCE HELD ON 10/08/2015
ROBERT E MULLEN , JUSTICE
IN CHAMBERS

10/14/2015 Charge(s): 1,2
TRIAL - DOCKET CALL SCHEDULED FOR 12/09/2015 at 09:45 a.m. in Room No. 1

12/09/2015 Charge(s): 1,2
TRIAL - DOCKET CALL CONTINUED ON 12/09/2015

12/09/2015 Charge(s): 1,2
TRIAL - DOCKET CALL SCHEDULED FOR 01/06/2016 at 09:30 a.m. in Room No. 1

12/09/2015 Charge(s): 1,2
TRIAL - DOCKET CALL NOTICE SENT ON 12/09/2015

01/06/2016 Charge(s): 1,2
TRIAL - DOCKET CALL CONTINUED ON 01/06/2016

01/06/2016 Charge(s): 1,2
TRIAL - DOCKET CALL SCHEDULED FOR 03/09/2016 at 10:15 a.m. in Room No. 1

01/06/2016 Charge(s): 1,2
TRIAL - DOCKET CALL NOTICE SENT ON 01/06/2016

03/10/2016 Charge(s): 1,2
TRIAL - DOCKET CALL CONTINUED ON 03/09/2016
ROBERT E MULLEN , JUSTICE

03/10/2016 Charge(s): 1,2
TRIAL - DOCKET CALL SCHEDULED FOR 04/06/2016 at 09:30 a.m. in Room No. 1

03/10/2016 Charge(s): 1,2
TRIAL - DOCKET CALL NOTICE SENT ON 03/21/2016

04/11/2016 MOTION - MOTION IN LIMINE FILED BY DEFENDANT ON 04/06/2016

04/11/2016 HEARING - MOTION IN LIMINE SCHEDULED FOR 05/19/2016 at 08:30 a.m. in Room No. 1

NOTICE TO PARTIES/COUNSEL

04/11/2016 HEARING - MOTION IN LIMINE NOTICE SENT ON 04/11/2016

05/18/2016 MOTION - MOTION TO CONTINUE FILED BY DEFENDANT ON 05/18/2016

05/18/2016 MOTION - MOTION TO CONTINUE GRANTED ON 05/18/2016
ERIC WALKER , JUDGE
COPY TO PARTIES/COUNSEL

05/18/2016 HEARING - MOTION IN LIMINE CONTINUED ON 05/18/2016

05/24/2016 Charge(s): 1,2
TRIAL - DOCKET CALL NOT HELD ON 05/24/2016

05/24/2016 Charge(s): 1,2
HEARING - MOTION IN LIMINE SCHEDULED FOR 07/26/2016 at 08:30 a.m. in Room No. 1
CR_200

NOTICE TO PARTIES/COUNSEL
BANDA

2-3 HRS PER

05/24/2016 Charge(s): 1,2

HEARING - MOTION IN LIMINE NOTICE SENT ON 05/24/2016

07/27/2016 Charge(s): 1,2

HEARING - MOTION IN LIMINE CONTINUED ON 07/26/2016

07/27/2016 ORDER - COURT ORDER FILED ON 07/26/2016

DONALD H MARDEN , JUSTICE

HEARING DATE TO BE SCHEDULED TO ACCOMMODATE THE APPEARANCE OF DEF EXPERT WITNESS. THE
EXPERT REPORTS WILL BE SUBMITTED NO LATER THAN 8/15/16

07/27/2016 CASE STATUS - CASE FILE LOCATION ON 07/27/2016

ON CHELSEY KRECHMERS DESK AWAITING MOTIONS FROM BANDA/KRISTIN

09/13/2016 Charge(s): 1,2

HEARING - MOTION IN LIMINE SCHEDULED FOR 10/31/2016 at 02:00 p.m. in Room No. 1

NOTICE TO PARTIES/COUNSEL

09/13/2016 Charge(s): 1,2

HEARING - MOTION IN LIMINE NOTICE SENT ON 09/13/2016

09/13/2016 CASE STATUS - CASE FILE RETURNED ON 09/13/2016

TO PENDING

10/21/2016 MOTION - MOTION TO CONTINUE FILED BY DEFENDANT ON 10/21/2016

10/26/2016 MOTION - MOTION TO CONTINUE GRANTED ON 10/26/2016

ERIC WALKER , JUDGE

COPY TO PARTIES/COUNSEL

DUE TO EXPERT'S SCHEDULE

10/26/2016 Charge(s): 1,2

HEARING - MOTION IN LIMINE NOT HELD ON 10/26/2016

10/26/2016 HEARING - MOTION IN LIMINE SCHEDULED FOR 10/31/2016 at 02:00 p.m. in Room No. 1

NOTICE TO PARTIES/COUNSEL

10/26/2016 MOTION - MOTION TO CONTINUE DENIED ON 10/26/2016

M MICHAELA MURPHY , JUSTICE

COPY TO PARTIES/COUNSEL

NEED TO APPEAR TO DISCUSS

SCHEDULING

11/01/2016 HEARING - MOTION IN LIMINE CONTINUED ON 10/31/2016

LAST CONTINUANCE PER JUSTICE MURPHY

11/01/2016 HEARING - MOTION IN LIMINE SCHEDULED FOR 01/20/2017 at 08:30 a.m. in Room No. 3

NOTICE TO PARTIES/COUNSEL

4 HOUR HEARING

11/01/2016 HEARING - MOTION IN LIMINE NOTICE SENT ON 11/01/2016

11/22/2016 HEARING - MOTION IN LIMINE NOT HELD ON 11/22/2016

11/22/2016 Charge(s): 1,2
HEARING - MOTION IN LIMINE SCHEDULED FOR 02/03/2017 at 08:30 a.m. in Room No. 1

NOTICE TO PARTIES/COUNSEL

11/22/2016 Charge(s): 1,2
HEARING - MOTION IN LIMINE NOTICE SENT ON 11/22/2016

02/01/2017 OTHER FILING - OTHER DOCUMENT FILED ON 02/01/2017

STATES RESPONSE TO DEFENSE MOTION IN LIMINE

02/24/2017 Charge(s): 1,2
HEARING - MOTION IN LIMINE HELD ON 02/03/2017
ROBERT E MULLEN , JUSTICE

02/24/2017 LETTER - FROM NON-PARTY FILED ON 02/23/2017

EXPARTE LETTER FROM VICTIMS MOTHER - NOT READ BY JUSTICE - COPIES MADE AND SENT TO ATTY
BANDA AND DDA CAVANAUGH, COPY PUT IN FILE AND ORIGINAL MAILED BACK TO SENDER

02/24/2017 Charge(s): 1,2
MOTION - MOTION TO PREPARE TRANSCRIPT FILED BY DEFENDANT ON 02/23/2017

Attorney: DARRICK BANDA

03/01/2017 Charge(s): 1,2
MOTION - MOTION TO PREPARE TRANSCRIPT GRANTED ON 03/01/2017
WILLIAM STOKES , JUSTICE
COPY TO PARTIES/COUNSEL

03/27/2017 OTHER FILING - TRANSCRIPT FILED ON 03/27/2017

MOTION IN LIMINE HEARING DATED 2/3/17

04/25/2017 ORDER - COURT ORDER FILED ON 04/25/2017
ROBERT E MULLEN , JUSTICE
JUSTICE MULLEN GAVE ATTORNEYS UNTIL 5/26 TO FILE CLOSING ARGUMENTS/BRIEFS.

5/25- JUSTICE MULLEN GAVE FINAL

EXTENSION TO 6/2

05/03/2017 CASE STATUS - CASE FILE LOCATION ON 05/03/2017

W/ LAW CLERK TILLY

6/8/17 FILE IS

NOW WITH JUSTICE MULLEN

07/05/2017 CASE STATUS - CASE FILE RETURNED ON 07/05/2017

07/05/2017 MOTION - MOTION IN LIMINE DENIED ON 07/05/2017

ROBERT E MULLEN , JUSTICE

COPY TO PARTIES/COUNSEL

07/05/2017 ORDER - COURT ORDER FILED ON 07/05/2017

ROBERT E MULLEN , JUSTICE

DEPT'S MOTION IN LIMINE TO EXCLUDE CERTAIN EXPERT TESTIMONY OF FORENSIC DNA ANALYST
CHRISTINE WATERHOUSE IS DENIED

COPY TO ATTYS AND REPOSITORIES

07/05/2017 TRIAL - DOCKET CALL SCHEDULED FOR 08/09/2017 in Room No. 1

A TRUE COPY

ATTEST:

Clerk

CR_200

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Printed on: 07/05/2017