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CIRCUIT COURT OF OREGON
FOR LANE COUNTY

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8 Of Attorneys for Defendant
9 Stephen Angius

10
11 IN THE CIRCUIT COURT FOR THE STATE OF OREGON
12 FOR LANE COUNTY

13 STATE OF OREGON,)
14)
15 Plaintiff,)
16)
17 vs.)
18)
19 STEPHEN ANGIUS,)
20)
21 Defendant.)
22)
23)
24)
25)
26)

Case No. 200924231

MOTION IN LIMINE TO
EXCLUDE FINGERPRINT
EVIDENCE

OEC 104 Hearing Requested

19 COMES NOW DEFENDANT Stephen Angius, by and through counsel Middleton &
20 Lee, P.C. and Rosalind M. Lee, asking this court for an Order excluding evidence of any
21 fingerprints offered by the government on the grounds that the fingerprint method employed in
22 this case, ACE-V, is not generally accepted in the scientific community, not validated by
23 scientific research, and on the further grounds that there is no generally accepted method for
24 reporting and testifying as to the results of an ACE-V analysis.

25 In the alternative, the defense moves to exclude any evidence or testimony, opinion or
26 otherwise, that evidence of fingerprints offered by the government in this case are a 100% match

1 to Mr. Angius; that fingerprint analysis has a zero error rate; and that fingerprints offered by the
2 government can be identified as Mr. Angius's to the exclusion of all others.

3 This motion is made on the further grounds as set forth in the Memorandum of Points and
4 Authorities in Support of Defendant's Motion in Limine to Exclude Fingerprint Evidence, filed
5 with this motion and incorporated by reference herein.

6 References

- 7 OEC 104
8 OEC 401
9 OEC 403
10 OEC 702
State v. Brown, 297 Or 404 (1984)
State v. O'Key, 321 Or 285 (1995)
Daubert v. Merrell Dow Pharmaceuticals, 509 US 579 (1993)

11 DATED: May 3, 2010

Respectfully Submitted,

Middleton & Lee, P.C.

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15 Rosalind M. Lee
Of Attorneys for Defendant Angius

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MEMORANDUM OF POINTS
AND AUTHORITIES IN
SUPPORT OF
MOTION IN LIMINE TO
EXCLUDE FINGERPRINT
EVIDENCE

OEC 104 Hearing Requested

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1 I. Introduction

2 “No particular reason of logic or good sense exists to
3 immunize particular areas or principles simply on the basis
4 of longevity or the fact that their introduction antedated
5 imposition of [a] new standard. Supposedly valid ‘science’
6 has not infrequently been unmasked.”

7 *State v. O’Key*, 321 Or 285, 293 (1995).

8 To the astonishment of many in the forensic science community, in August of 2009 the
9 National Academy of Sciences [hereinafter “NAS”] issued a report calling into question the
10 validity of how fingerprint evidence is analyzed using the ACE-V method, how the results are
11 reported, and how forensic examiners testify as to their conclusions in court.¹ In short, NAS
12 effectively pulled the rug out from under decades of legal reliance on the validity and strength of
13 fingerprint evidence.

14 As to fingerprints, the bottom line of the NAS report was this: after an exhaustive review
15 of the relevant scientific literature, there is no scientific evidence that supports the validity of the
16 ACE-V method of fingerprint analysis, the method used in this case. The report went on to
17 identify further failings the ACE-V method: that the “method is not specific enough to qualify as
18 a validated method...[it] does not guard against bias; is too broad to ensure repeatability and
19 transparency; and does not guarantee that two analysts following it will obtain the same results.”
20 NAS Report at 142.

21 One implication of the NAS Report is that the scientific community recognizes that there
22 is no scientific justification for the testimony given by analysts when reporting their results.
23 Specifically, analysts may no longer testify that fingerprints have a zero error rate; that the
24 analyst is 100% certain of his or her conclusions; and that a known and unknown fingerprint
25 match. Heidi Eldridge, *Perspectives from the NAS Report Conference at ASU*, IDentification

26 ¹ See National Academy of Sciences, *Strengthening Forensic Science in the United States: A Path Forward*,
http://www.nap.edu/openbook.php?record_id=12589&page=1 (last visited April 26, 2010) [hereinafter NAS
Report]. The report discusses multiple topics in forensic science. The relevant portion of the NAS Report regarding
fingerprints is attached hereto as Exhibit A, and incorporated by reference herein.

1 News at 8 (June-July 2009). A copy of that article is attached hereto as Exhibit B and
2 incorporated by reference herein. As noted by Ms. Eldridge in response to the NAS findings:
3 “[w]e can’t say what we used to say and we can’t yet say what we will say. What do we say in
4 the meantime? What do we do? How do we achieve consistency when everyone is feeling their
5 way alone in the dark?” *Id.*

6 Defendant Stephen Angius is charged with burglary and theft. The defense expects the
7 state to offer at the trial in the above matter evidence that two fingerprints found on items in the
8 complainant’s apartment belong to Mr. Angius. For the reasons stated below, the defense
9 objects to the introduction of this evidence.

10 11 **II. Law and Argument**

12 13 **A. The Court Should Exclude the Fingerprint Evidence in this Case because** 14 **there is No Scientifically Valid, Generally Accepted Method for Analyzing** **Fingerprint Evidence and Testifying about the Results of the Analysis**

15 To be admissible scientific evidence must be relevant, helpful to the jury, and the
16 probative value of the evidence must not be substantially outweighed by its prejudicial effect.
17 *O’Key, supra*, 321 Or at 298-99 *citing* OEC §§. 401, 402, 702. The court must evaluate the
18 probative value of the offered evidence, determine whether the evidence will assist or impair the
19 trier of fact, and assess whether justice is best served by admitting or excluding the evidence.
20 *State v. Brown*, 297 Or 404, 409 (1984). To make these determinations courts consider multiple
21 overlapping factors when determining whether to admit scientific evidence. *O’Key, supra*, 321
22 Or at 299 *citing Brown*, 297 Or at 409.

23 1. As the Proponent of the Evidence, the State Has the Burden of Proving the 24 Fingerprint Evidence in this Case is Admissible

25 The state has the burden of proof to show that the fingerprint evidence in this case is
26 admissible. Kirkpatrick, *Oregon Evidence* (5th ed.) at 609. An exception to the general rule that

1 the proponent of scientific evidence has the burden to show that the evidence is admissible if
2 there exists a previous judicial ruling or statute announcing the admissibility of a particular type
3 of scientific evidence. *Id.* However, “in the absence of a clear case, a case for judicial notice, or
4 a case of *prima facie* legislative recognition, trial courts have an obligation to ensure that
5 proffered expert testimony that a court finds possesses significantly increased potential to
6 influence the trier of fact as ‘scientific’ assertions is scientifically valid.” *O’Key, supra*, 321 Or
7 at 293. There is no clear case or rule in Oregon holding that the ACE-V method of fingerprint
8 analysis is admissible.

9 According to Kirkpatrick’s *Oregon Evidence* (5th ed.), the court in *State v. Smith*, 128 Or
10 515, 526 (1929) “approved” fingerprint evidence as scientific evidence. Kirkpatrick, *Oregon*
11 *Evidence* (5th ed.) at 612. Uncharacteristically, Kirkpatrick overstates the holding of *Smith*. The
12 opinion in *Smith* is an analysis of the Habitual Criminal Act, Chapter 334, General Laws of
13 Oregon, 1927. The entire discussion by the court about fingerprint evidence is as follows:
14 “[n]either is there merit in the assignment relating to the finger-prints admitted into the record as
15 evidence, for the purpose of identifying the accused: Underhill’s *Crim. Ev.* (3 ed.) p.1133.”
16 *Smith*, 128 Or at 526. Nothing in the opinion indicates the basis of the defendant’s objection
17 regarding the fingerprint evidence; whether any evidence was heard by the trial court on the
18 issue of fingerprints, what legal standard the court applied when admitting the fingerprint
19 evidence; and whether the Supreme Court was basing its decision on scientific validity of
20 fingerprint evidence.

21 Furthermore, there is no way to tell from the opinion whether the method used to analyze
22 the fingerprints in *Smith* was the same method as used in this case. Indeed, the method used in
23 this case, ACE-V, came into use in the late 1950’s, so it is most likely the evidence in *Smith* was
24 analyzed using a different method. *See* NAS Report at 137.

25 Finally, a reasonable inference from the opinion in *Smith* is that the fingerprint evidence
26 in that case was used to compare two known fingerprint standards taken from the defendant. The

1 state would rely on this evidence to show that the defendant was the same person who suffered
2 the prior conviction used to increase the sentence for the instant offense. The fingerprint
3 evidence in the instant case compares fingerprints from known and unknown sources.

4 The holding in *Smith* cannot be used for the proposition that fingerprint evidence has
5 been approved. As a result, because the particular type of scientific evidence in this case has not
6 been approved either by statute or by a prior appellate decision, the government has the burden
7 of proof to show that the fingerprint evidence in this case is admissible.

8
9 2. Fingerprint Evidence is Inadmissible under the Standards of *Brown* and *O'Key*

10 The Oregon Supreme Court has identified no fewer than twenty-one factors for trial court
11 to consider when determining whether to admit scientific evidence. See *O'Key, supra*, 321 Or at
12 299-300 citing *State v. Brown*, 297 Or 404, 409 (1984). These factors overlap and are neither
13 exclusive nor mandatory. *Id.* at 300 (citation omitted). Rather, these factors provide a
14 framework for the trial court in determining the admissibility of scientific evidence.

15 As detailed below, applying these factors to the ACE-V method of fingerprint analysis
16 shows that this method is not generally accepted in the scientific community, is based entirely on
17 the subjective judgment of the analyst, has no known error rate—even though errors are
18 committed, has no standards for uniform application of the method, and has no safeguards to
19 prevent errors. The Court should exclude the fingerprint evidence in this case.

20
21 a) *The ACE-V Method of Fingerprint Analysis is Not Generally Accepted in the Relevant Scientific Community*

22 This factor is described in *Brown* as whether the technique is generally accepted in the
23 field. *Brown, supra*, at 409 While those who conduct fingerprint analysis accepted the ACE-V
24 method of fingerprint comparison, the relevant field does not include just those people who use
25 the technique. Indeed, the relevant scientific community is the greater group of forensic
26 scientists who evaluate scientific techniques to determine their validity. The NAS report was

1 drafted by a committee of scientists, judges, law professors and an attorney. See NAS report at
2 v. This group, the Committee on Identifying the Needs of the Forensic Science Community
3 (hereinafter “NAS Committee”), included forensic scientists from law enforcement agencies,
4 professors of forensic science, and academics in related scientific fields such as statistics,
5 chemistry, physics, and chemical engineering. *Id.*

6 The NAS Committee is not the first to express doubts about the scientific validity of
7 fingerprint evidence. Fissures in the scientific community have been appearing for at least a
8 decade. In 1999 the National Institute of Justice recognized that there was no validation for
9 many of the underlying assumptions of fingerprint analysis. See National Institute of Justice,
10 *Forensic Sciences: Review of Status and Needs*, <http://www.ncjrs.gov/pdffiles1/173412.pdf> at
11 29 (last visited April 30, 2010)(noting that the theoretical basis for assuming that fingerprints are
12 unique to an individual “has had limited study and needs a great deal more work...”). See also,
13 Simon A. Cole, *More than Zero: Accounting for Error in Latent Fingerprint Identification*, 95 J.
14 Crim L. & Criminology (2005); Robert Epstein, *Fingerprints Meet Daubert: The Myth of*
15 *Fingerprint “Science” Is Revealed*, 75 S. Cal. L.R. 605, 656 (2002).

16 Even prior to the NAS Report courts around the country have excluded testimony
17 regarding fingerprint evidence because of the lack of validation for the method. See, e.g.,
18 *Maryland v. Rose*, Baltimore Cty. Case No. K06-0545 (2008) citing *New Hampshire v. Langil*,
19 No. 05-5-1129 (Sup. Ct. Rockingham Jan. 19, 2007); *Jacobs v. Virgin Islands*, 53 F Appx 652,
20 652 (3d Cir 2002); *U.S. v. Parks*, No. CR-91-358-JSL (CD Cal Dec. 10, 1991).

21 The ACE-V method of fingerprint analysis is not generally accepted in the scientific
22 community as a validated, verifiable method of identifying a person from a latent print. From
23 the NAS report one could reasonably infer is that the scientific community believes that
24 fingerprint evidence can be salvaged, but not before scientist complete a great deal of peer-
25 reviewed research and develop standardized methodology that is uniformly accepted and used.
26 See Eldridge, *supra*, at 12.

1 b) *Whether the Theory or Technique Can be and Has Been Tested*

2 This factor asks the court to consider whether the scientific technique has been validated.
3 The court in *O'Key* equates this factor with the factor from the *Brown* opinion that asks “whether
4 there are other experts to test and evaluate the technique.” *O'Key*, 321 Or at 303.

5 The ACE-V method has not been validated by scientists. NAS at 143. Because there is
6 no uniform method of applying the ACE-V method, it cannot be tested. *See* NAS Report at 143.
7 First, scientists must create a uniform method for applying the ACE-V method, then that method
8 could be tested.

9 c) *The Expert's Qualification and Stature*

10 EPD Forensic Analyst Heidi Eldridge conducted the fingerprint analysis in this case.
11 According to her CV, Ms. Eldridge has been trained to conduct fingerprint comparisons by
12 various law enforcement sources. Her most recent training in analyzing fingerprints was in
13 February, 2009. According to her CV, Ms. Eldridge is not a certified fingerprint examiner.

14 Ms. Eldridge's results were reviewed by Analyst Pope. The defense has requested the
15 CV of this analyst, but at the time of filing this motion, the defense has yet to receive it.

16 d) *The Use Which has been Made of the Technique*

17 The ACE-V method of fingerprint analysis has been in use since the late 1950s.
18 Fingerprint examiners have used this technique, for better and for worse, for decades in forensic
19 applications.

20 e) *The Potential Rate of Error*

21 A hallmark of admissible scientific evidence is a known error rate. Although for years
22 fingerprint analysts have testified that fingerprint analysis has a “zero” error rate, there is no
23 support for that claim.

24 A Portland resident, Brandon Mayfield, was accused of participating in a bombing in
25 Madrid based on a fingerprint the FBI “matched” to one of his. He was arrested on a material
26 witness warrant, interrogated, and detained. After multiple reviews of the known and unknown

