

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

UNITED STATES OF AMERICA :  
v. : CRIMINAL NO. 96-00407  
BYRON C. MITCHELL :

GOVERNMENT’S PROPOSED FINDINGS  
OF FACT AND CONCLUSIONS OF LAW

The *Daubert* hearing in this case took place over a period of four and a half days. The Court will issue a complete opinion in the near future and issued this interim opinion in light of the imminent trial date in this case.

The Court has before it the following issues:

A. The government’s request to admit expert latent fingerprint examiners’ testimony under Fed.R.Evid. 702 and the Supreme Court’s holdings in *Daubert* and *Kumho*.

B. The government’s request pursuant to Fed.R.Evid. 201(d), that the Court take judicial notice of the premises introduced as Gov. Exh. A, which are:

1. Human Friction Ridges Are Unique and Permanent;
2. Human Friction Ridge Skin Arrangements Are Unique and Permanent; and,
3. Individualization, That Is, a Positive Identification, Can Result from Comparisons of Friction Ridge Skin or Impressions Containing a Sufficient Quality (Clarity) and Quantity of Unique Friction Ridge Detail.

C. The government’s Motion *In Limine* to exclude the trial testimony of James E. Starrs, David A. Stoney, and Simon A. Cole.

D. The defendant's Motion *In Limine* to exclude the government's fingerprint identification evidence; and

E. The defendant's Motion *In Limine*, in the alternative, to allow the defendant to present the trial testimony of James E. Starrs, David A. Stoney and Simon A. Cole "regarding the limitations of that [fingerprint] evidence."

### **The Hearing and Findings**

The government introduced the testimony of two scientists, Doctor William J. Babler, an expert in the field of prenatal development of human variation, particularly friction ridges and their configurations, and Doctor Bruce Budowle, an expert in the field of genetics, genetics population, statistics, quality assurance standards, and validation of scientific methods. Dr. Babler gave an extensive presentation of his research and findings on the creation and development of the human friction ridge skin and the friction ridges. Other evidence which was presented by the government at the hearing also supported Dr. Babler's opinions and findings.

The government also introduced the testimony of several highly qualified fingerprint experts, characterized by a *defense* witness, Dr. Simon A. Cole, as the "elite" in their field. Testifying at the hearing were Staff Sergeant David R. Ashbaugh of the Royal Canadian Mounted Police; Special Agent Edward German from the United States Army Crime Laboratory in Atlanta, Georgia; and Stephen B. Meagher, Supervisory Unit Chief in the Latent Fingerprint Section of the Federal Bureau of Investigation in Washington, D.C. Also testifying was Donald Ziesig, an algorithmist employed at Lockheed Martin in Orlando, Florida. Ziesig is an expert in Automated Fingerprint Identification Systems, an expert in pattern recognition, and a former rocket scientist. Ziesig explained some of the aspects of Automated Fingerprint Identification Systems (AFIS) and the 50K x 50K Fingerprint Study. In the government's rebuttal case, the

government produced the testimony of Pat Wertheim, another highly qualified fingerprint expert and rebuttal testimony from Dr. Budowle. The defendant's experts were Dr. David A. Stoney and Dr. Simon A. Cole, both Ph.D.'s in forensic science fields, and James E. Starrs, a law professor. All of the testimony that was presented has been considered by the Court in reaching its conclusions.

In light of the totality of the evidence presented at the hearing, the Court finds that:

1. A template is formed during prenatal development of friction ridge skin. That template, which translates the friction ridges and their arrangements to the surface of the skin, is permanent, and absent damage to the template, remains permanent throughout one's life.
2. Human friction ridges are unique and permanent throughout the area of friction ridge skin, including small friction ridge areas.
3. Human friction skin arrangements are unique and permanent.
4. Individualization, that is, a positive identification, can result from comparisons of friction ridge skin or impressions containing a sufficient quality (clarity) and quantity of unique friction ridge detail.
5. The methodology used by the fingerprint community, namely, ACE-V, analysis, comparison, evaluation and verification is a proper scientific method and protocol for latent fingerprint identification, having foundation in a multitude of scientific disciplines and in over 100 years of research and testing.
6. The government's proposed expert testimony is scientific, technical and other specialized knowledge that will assist the jury in this case to understand the fingerprint evidence and to determine the facts at issue. Rule 702 of the Federal Rules of Evidence.

7. The government's potential expert witnesses, including Dwayne Johnson, an FBI latent fingerprint examiner, who testified at the first trial of this case, or any of the fingerprint experts that testified at the *Daubert* hearing, are qualified as experts by reason of their knowledge, skill, experience, training and education and therefore may offer opinion testimony at trial. Rule 702.

8. The government's fingerprint evidence is highly probative and substantially outweighs any danger of unfair prejudice to the defendant, confusion of the issues or misleading of the jury. Rule 403.

9. The government's Motion to Admit expert latent fingerprint testimony at trial is granted. The defendant's Motion to Exclude that evidence is denied.

10. The Court will grant the government's motion to exclude the defendant's witnesses, Dr. David A. Stoney, Dr. Simon A. Cole, and James E. Starrs, from testifying at trial. The Court is guided by the Supreme Court's decisions in *Daubert* and *Kumho* and the gatekeeping obligations imposed upon the Court by those decisions. The Court excludes their testimony based in part on the following findings.

A. None of the defense witnesses is an expert in the relevant community, that is, in the latent fingerprint examination field.<sup>1</sup>

B. Their testimony will not assist the jury in understanding the fingerprint evidence at trial. Rule 702.

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<sup>1</sup> The Court makes this finding while recognizing that Dr. Stoney is marginally qualified in the relevant community, but the Court agrees and the record establishes that he is not an expert in the latent fingerprint field, that is, he is not an expert in the development, comparison, and identification of friction ridge skin and impressions and was not offered or qualified as such.

C. Even assuming that the proposed defense evidence is relevant, that the evidence must be excluded because its probative value is substantially outweighed by the danger of unfair prejudice to the government, because it will confuse the issues, and will mislead the jury. Rule 403.

10. The government's request that this Court take judicial notice of the premises advanced by the government at the *Daubert* hearing is granted. The Court will take judicial notice of the premises states in Gov. Exh. A and will instruct the jury appropriately.

An appropriate order follows.

Respectfully submitted,

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\_\_\_\_\_/s/ Paul A. Sarmousakis  
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