

FORENSIC RESEARCH TRAINING CENTER

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Dr. Henry C. Lee
Director

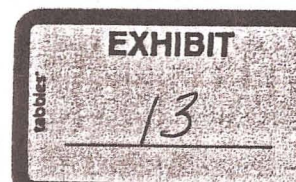
Report to: Attorney Lee Markovitz
1220 Grant Building
Pittsburgh, PA 15219

RE: Commonwealth of Pa. Vs. Charles J. Goldblum

Date of Submission: May 4, 2001
Date of Report: June 15, 2001
Case No: HL970117PA

AFFIDAVIT OF DR. HENRY C. LEE:

Dr. Henry C. Lee, the undersigned affiant, of lawful age, being duly sworn, states that he resides in Branford, Connecticut; that he was graduated from New York University in 1975 with a Doctor of Philosophy in Biochemistry; that he was graduated from New York University in 1974 with a Master of Science degree; that he was graduated from John Jay College of Criminal Justice in 1972 with a Bachelor of Science in Forensic Science; that he was graduated from Central Police College in Taiwan in 1960 with a degree in Police Science; that he received an Honorary Doctor of Humane Letters in 1996 from Saint Joseph College; that he received an Honorary Doctor of Science Degree in 1990 from University of New Haven; that he received an Honorary Doctor of Law from Roger Williams University School of Law in 1998; that he received an Honorary Doctor of Humane Letters from Bridgeport University in 1999; that he is Director of Forensic Research Training Center in Connecticut; that he is Chief Emeritus for Connecticut Department of Public Safety, Division of Scientific Services; that from 1998-2000 he was Commissioner for Department of Public safety, State of Connecticut; that from 1979 - 2000 he was Director and Chief Criminalist for Forensic Science Laboratory, State of Connecticut; that from 1975-1999 he is a Professor and Program Director of Forensic Science at University of New Haven; that from 1965-1974 he was a Research Scientist at New York University Medical Center; that he is a Distinguished Professor at University of New Haven, Central Connecticut State University, and University of Connecticut;



that he is a Distinguished Fellow of the American Academy of Forensic Sciences; that he is a Distinguished Member of the International Association for Identification; that he is certified by the International Association of Identification as a Senior Crime Scene Analysts; that he is a member of International Association of Blood Pattern Analysts; that he is a member of International Homicide Investigator's Association; that he has authored or co-authored 30 books, major chapters and reports, and published about 300 articles in professional journals covering the topics in chemistry, instrumental analysis, serology, DNA, forensic science, trace evidence, fingerprints, bloodstain pattern analysis, crime scene investigation, crime scene reconstruction, education and criminal justice; that he has qualified as an expert witness or an expert involved in forensic science, forensic serology, blood spatter analysis, crime scene investigation, hair and fiber analysis, fingerprints, imprints and general physical evidence in various municipal, state, and federal courts throughout the United States and abroad; and has consulted in criminal investigations, forensic science, physical evidence, crime scene analysis, and reconstruction in hundreds of cases throughout the world.

At your request, as detailed in the letters of May 4th and June 5, 2001, I have reviewed the following documents related to the evidentiary hearing re: Commonwealth of Pa. Vs. Charles J. Goldblum, before Judge Donna Jo McDaniel:

- (1) Transcript from the hearing on October 18 and 19, 2000, which includes the testimony of Dr. Cyril Wecht;
- (2) Transcript from testimony of December 18, 2000, which includes the testimony of Toby Wilson;
- (3) Report of Dr. Henry Lee dated February 25, 1997;
- (4) Report of Herbert Leon MacDonell dated December 13, 2000.

After a detailed review of these submitted documents the following comments and conclusions were drawn. There were two primary issues, one issue involved bloodstain pattern analysis and interpretations and the second issue involved forensic hair examinations.

I have submitted a detailed Laboratory Report regarding blood spatter pattern and scene reconstruction on February 25, 1997. My opinion concerning those issues remains the same.

ISSUE I: Conclusions Regarding Blood Stain Pattern Evidence:

Based upon the facts articulated in the submitted documents, the opinion stated in page 5 of Herbert Leon MacDonell's Affidavit Re: Charles J. Goldblum, dated December 13, 2000 – "Therefore, in consideration of the description of the bloodstain pattern on the dashboard, the instrument from which the blood was cast far more likely than not was swung by someone who was sitting in the front seat," is more consistent with those facts than the stated opinion of Toby Wolson which declares that the blood spatter on the dashboard of the vehicle involved in this case might not be a cast off blood spatter at all, but instead a low force protected blood spatter.

ISSUE II: Conclusions Regarding Forensic Hair Analysis:

Based on my training and year of experience in forensic analysis of trace evidence such as hairs, I disagree with the opinion of Toby Wolson, as stated on pages 39 and 40 of his transcript, stating that "Using hairs other than head hair and pubic hair of doing forensic comparisons in evaluating is not a valid way of comparing hairs. The teaching that most forensic examiners do, the only hairs usable for comparisons are head hairs and pubic hair. Body hairs lack enough characteristics in differentiations detailed and to use a comparative source...". Forensic Scientists can and do conduct relevant and meaningful examinations on hairs from all somatic regions. Therefore, I disagree with Toby Wolson's conclusion that the interpretation of hairs found in the bloody gloves at the murder scene is not reliable because hairs analyzed were not head or pubic hairs. My opinion is based upon the following facts.

1. Examination of trace evidence, including hairs, involves three major steps, identification, classification, and individualization. Each of these phases of hair examination can provide valuable information. It is possible to exclude or include an individual as a potential source of the hair by the identification and classification phases alone. While Toby Wolson's statement regarding the inherent lack of value regarding the comparison of body hairs may have some reliability in reference to the individualization phase of hair comparison, it is not a correct conclusion in reference to the potential for valuable information obtained by means of identification and classification analysis schemes.

2. Examination of a hair can not only lead to the valid conclusion that the hair is from an animal, but also can distinguish the species from which the hair is associated. It is possible to distinguish a hair as having a human origin.
3. Further examination of a hair may also reveal the somatic origin of the hair. Distinguishing a hair as originating from a particular somatic origin, such as the head, pubic region, facial beard, or as a body hair may be of value in the interpretation of the overall examinations of physical evidence and reconstruction of events which may or may not have occurred based upon the results of examination of physical evidence.
4. Examination of hairs can also identify the racial origin as Caucasian, Negroid, or Mongoloid. A racial determination can be used to exclude or include a specific individual, based upon their racial profile, as being a possible contributor to the source of the identified hair/s. This information is especially valuable in case where there are multiple parties, suspects and victims, of varying races.
5. In addition to class characteristic, individual characteristics can be obtained from the examination of any hair, regardless of the somatic origin. Traditional serological testing such as ABO blood group typing can be conducted on hairs. Hairs with attached follicles or tissue material are also capable of providing Isoenzyme types such PGM. However, whether a hair has sufficient tissue material to proceed with serological and isoenzyme testing can only be determined by laboratory examination of the hair.
6. Moreover, with current technologies such as Mitochondrial DNA analysis individualizing characteristics, with far greater discrimination possibilities, can be obtained from a majority of hairs, again regardless of the somatic origin of the hair. Mitochondrial DNA is advantageous in that a successful profile need not depend upon the existence of a follicle or tissue, because the hair shaft itself is the source of Mitochondrial DNA. Mitochondrial DNA analysis of hairs is well established as an excellent method for excluding or including an individual as the potential source of a hair in forensic examinations.

Affidavit of Dr. Henry C. Lee

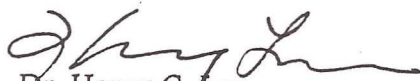
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7. Additional examinations of hairs, including body hairs, can reveal relevant and significant details. Microscopic examination of hairs may reveal cuts or damage to hairs that are consistent with contact from a cutting instrument or blunt object. Further, microscopic and instrumental analysis of trace materials adhering to hairs may provide valuable information.

Overall, I disagree with Toby Wolson's conclusion, which only refers to microscopic comparison of known and questioned hairs and fails to recognize the overall value of forensic hair examination, regardless of somatic origin. Thus, his conclusion is misleading the court in regards to the importance of preservation of evidence and the potential value of body hairs. While microscopic comparison of hairs from somatic regions other than the head or pubic regions may not have the same potential value based upon microscopic comparison alone, there is significant relevant information that may be obtained from the examination of hairs, regardless of the somatic origin. The conclusions of these examinations, as discussed above, can conclusively exclude an individual as a potential source of the hair, or include an individual as a possible contributor to the hair. An exclusion or inclusion would be valuable scientifically based information, and should not be overlooked or disregarded during a comprehensive evaluation of physical evidence in a case.

Respectfully Submitted,

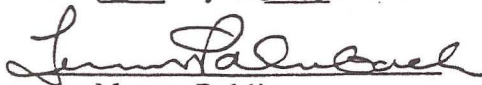


Dr. Henry C. Lee

Director, Forensic Research Training Center

Subscribed and sworn to before me

This 15th day of June 2001



Notary Public

Date Commission Expires: 4/30/2003